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# THE PRESERVATION OF OUR NATIVE TYPES OF HORSES.

BY

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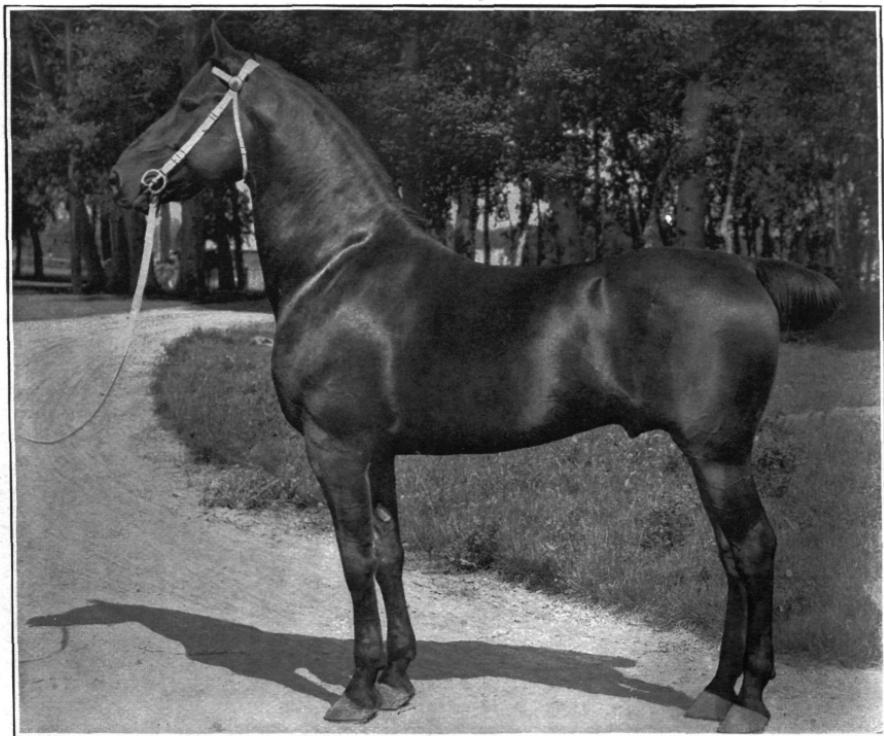
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CARMON 32917, AT 12 YEARS OF AGE.

Standardbred carriage stallion, shown as "Glorious Thundercloud." At the head of the Government stud at the Colorado Experiment Station since 1905.

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## THE PRESERVATION OF OUR NATIVE TYPES OF HORSES.

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### INTRODUCTION.

The development of types of light horses has been notable in America. In colonial days the Narragansett pacer was a famous type, and later came the Morgan, the Standardbred, and the Saddle Horse. The specialization of these light types is a national trait, and in spite of importations from abroad we have still clung to the native types and have developed them. In respect to the draft horse, on the other hand, we have with only one exception—the Conestoga draft horse—relied entirely on the transplanting of foreign breeds for our supply. Since the Conestoga horse has vanished completely, leaving no discernible traces on the native stock, we have no native material from which to build up breeds of draft horses.

In the matter of light horses, however, we are especially fortunate in having types which have been developed from stock brought to the country during a period covering some three hundred years, little of which was cold-blooded. This stock and the descendants from it have left a progeny which contains probably a smaller amount of cold blood than that of any European country. From it have descended the types and breeds mentioned above, and in it the country has unequaled possibilities for further development.

The last century was as momentous in the development of horse breeding in the United States as in material, financial, and political development. Messenger, imported in 1788, and Justin Morgan, foaled in 1789, were just beginning to make an impression on the horse stock when the eighteenth century closed. Lady Suffolk, 2.29½, trotted the first mile under 2.30 at the Beacon Course in Hoboken on October 13, 1845; Alix made her record of 2.03½ at Galesburg on September 19, 1894, and Lou Dillon finally got within the two-minute mark at Memphis nine years later—only three years after the nineteenth century closed.

Denmark, the foundation sire of the breed of American Saddle Horses, was foaled in 1839, and Hambletonian 10, the foundation sire of Standardbreds, just ten years later. The Morgans, therefore, had some fifty years start over the Hambletonians and Danmarks, and it is

not surprising that fifty years ago they shared with the Thoroughbred the first place in popular esteem.

With the development of speed in the light harness race horse the superior qualities of the descendants of Hambletonian 10 and his sons became recognized, and for a time the tendency to concentrate this blood threatened to swamp every other strain, especially the Morgan and Clay blood, both of which possessed beauty of conformation, action, and quality, but with few exceptions failed to show the inherent speed possibilities shown by the Hambletonians. The Clay blood can not be found now in its purity, and until recently the indications were strong that the Morgan was similarly fated.

That the Hambletonian line was especially strong in its speed-producing powers is an admitted fact. That it has been the most powerful factor in the development of the light-harness trotter as a race horse is a truism. But Rysdyk's Hambletonian himself was not an object of great beauty, except in action. He had a wonderfully true and frictionless straight-line trot, with an ability to extend himself when in his stride that is most important in a race trotter. He transmitted the trotting instinct to his descendants in a marked degree, but he also gave many of them the manifest faults of conformation which he himself had. These faults are generally admitted by trotting-horse men and are points which the best breeders of to-day are endeavoring to eliminate. From the market standpoint they are grave faults, and unless the animal has a large amount of speed they seriously depreciate his value.

The development of the trade in fine market classes of light horses in the United States and the presence of these faults in the native horse led largely to the importation of Hackney, French, and German coach horses. A few Cleveland Bays and Yorkshire Coachers were brought over also. From 1870 to 1890 these horses, especially the Hackneys, were given every opportunity to show their mettle in the stud as well as in the market and show ring. Yet the American horse, selected by shrewd buyers, was able to compete successfully with them, first masquerading under the name of the foreign breed, but finally standing on his merits as the American horse.

These horses came from all over the country, wherever trotters were bred; but the New England States, Kentucky, and the corn-belt States were the main sources of supply. In many cases they were properly called accidents—that is, they were not bred for the market or show ring as carriage horses, but for the race track. Failing in the latter qualification and possessing good conformation, style, action, and quality, they were not appreciated by the man who was breeding solely for speed, and were readily sold to be developed

for the market. Stallions were bought and usually castrated; young mares were taken from the breeding fields and never bred. For example, the horse Lord Brilliant after being bred to a few mares in Illinois was sold and castrated, and afterwards made a remarkable record as a show horse. Entire, he would have been of the greatest value to the horse industry; castrated, he was worth only his market value as a show horse. A story, told on good authority, regarding the sire and dam of this horse further illustrates the point. It is said that the sire had a similar fate to Lord Brilliant and was sold and castrated, while the dam was bought by a dealer and exported. Thus the family was almost annihilated. A few descendants survive, and it is greatly to be hoped that they will be given an opportunity at the stud.

These facts indicate that the great danger which threatened the development of the carriage-producing lines in the Standardbred was the buying up of mares from the breeding farms and the castration of stallions. Farmers and breeders did not sufficiently appreciate the value of the horse for anything but speed production. In the case of the Morgan the same thing was true in another way. Everyone knew the qualities of conformation, style, and endurance which the breed had, but few realized that in the long run those qualities were worth more money than speed records. With the track records of Ethan Allen and Daniel Lambert before them, Morgan breeders began to think that the Morgan could be made a race horse, and the speed craze struck them also. When the especial value of the Hambletonian and George Wilkes lines for speed production began to be recognized Morgan breeders resorted to crosses with them, and the Morgan soon became affected by the change in breeding methods. Whereas the usual conformation had been rounded and compact, it became more angular and rangy. The desire for greater size in the Morgan found its expression in similar and even more violent crosses. As a result we have the Morgan situation of to-day—a few real Morgans fostered by breeders who were loyal to breed standards and who were not carried away by the fashion of the hour, and a very great many which trace to Justin Morgan and are registered as Morgans but are Morgans only in name. Anyone witnessing the Morgan exhibit at the horse show of the Louisiana Purchase Exposition at St. Louis in 1904 could not fail to be impressed with this fact. The real Morgan was there, but he was to a large extent obscured by the great number of ungainly, ill-assorted horses which were in type more Standardbred than anything else, but which, if entered in the Standardbred classes, would have received little attention from the judges.

## THE INTRINSIC VALUE OF AMERICAN BLOOD.

That it would be a misfortune to allow our native types to be lost is shown (1) by the influence of the Morgan on the development of the American Saddle Horse, (2) by the influence of various strains in the stock registered in the American Saddle Horse Register on the development of horses suitable for carriage and general purposes, and (3) by the value of certain blood lines in the Morgans and Standardbreds to produce the same useful types.

## INFLUENCE OF MORGAN BLOOD ON THE SADDLE HORSE.

Among the most prominent sires whose influence on Kentucky saddle stock has been of permanent value, Cabell's Lexington, Cole-

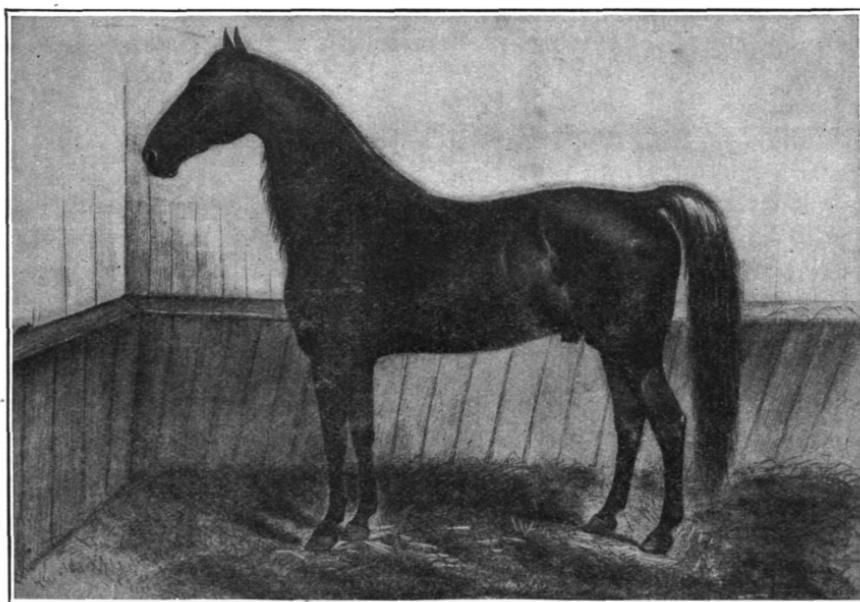


FIG. 1.—Harrison Chief. By Clark Chief; dam Lute Boyd by Joe Downing. The sire of Wilson's King and Bourbon Chief. (Photograph from a painting, by courtesy of Kentucky Farmer and Breeder.)

man's Eureka, Peavine, Indian Chief, and Harrison Chief stand out distinctly. Of these horses all but Harrison Chief trace in direct male line to Justin Morgan and are registered in the American Morgan Register.

Cabell's Lexington was by Gist's Black Hawk, he by Blood's Black Hawk, he by Vermont Black Hawk, and he by Sherman Morgan, a son of Justin Morgan. Through the female line, Cabell's Lexington traces through the sire of his dam to Sherman Black Hawk, one of the best of Vermont Black Hawk's sons.

Coleman's Eureka was by Young's Morgan, he by Butler's Eureka, he by Green Mountain Morgan, he by Gifford Morgan, and he by

Woodbury Morgan, a son of Justin Morgan. The dam of Butler's Eureka was also by Gifford Morgan.

Peavine was by Rattler, he by Stockbridge Chief, and he by Vermont Black Hawk.

The pedigree of Indian Chief is somewhat in dispute in certain lines, but the fact is well established that he was by Blood's Black Hawk, a son of Vermont Black Hawk.

Butler's Eureka, the grandsire of Coleman's Eureka, and Blood's Black Hawk, the grandsire of Cabell's Lexington and the sire of Indian Chief, were both bred in Vermont and taken to Kentucky in the decade before the civil war. The blood of these and other horses



FIG. 2.—Eckersall and Tattersall. Horses which show what "saddle" blood can do in the production of high-class carriage horses. (Photograph by courtesy of Kentucky Farmer and Breeder.)

can be found all through Kentucky, and Maj. David Castleman is authority for the statement that of the horses registered in the first two volumes of the American Saddle Horse Register over 10 per cent trace in direct male line to Justin Morgan.

#### "SADDLE" BLOOD IN AMERICAN CARRIAGE HORSES.

It is well known that many of the best and highest-priced harness horses which go out of Kentucky are practically saddle-bred and some of them are registered in the American Saddle Horse Register. The breeding of these horses is exceedingly interesting and instruc-

tive. For example, a pair known as Tattersall and Eckersall (see fig. 2) was sold about two years ago for \$6,000. Tattersall is registered as No. 2007 in the American Saddle Horse Register. He was bred by J. Gano Johnson, Mount Sterling, Ky., and was sired by Bourbon Chief, dam by Red Cloud, a son of Indian Chief; second dam by Rhoderick, by Mambrino Le Grand; third dam by Magic, a Standardbred horse by American Clay, he by Cassius M. Clay, jr. As is well known, Bourbon Chief was by Harrison Chief, a grandson of Mambrino Chief; his dam was by Latham's Denmark by Wash-

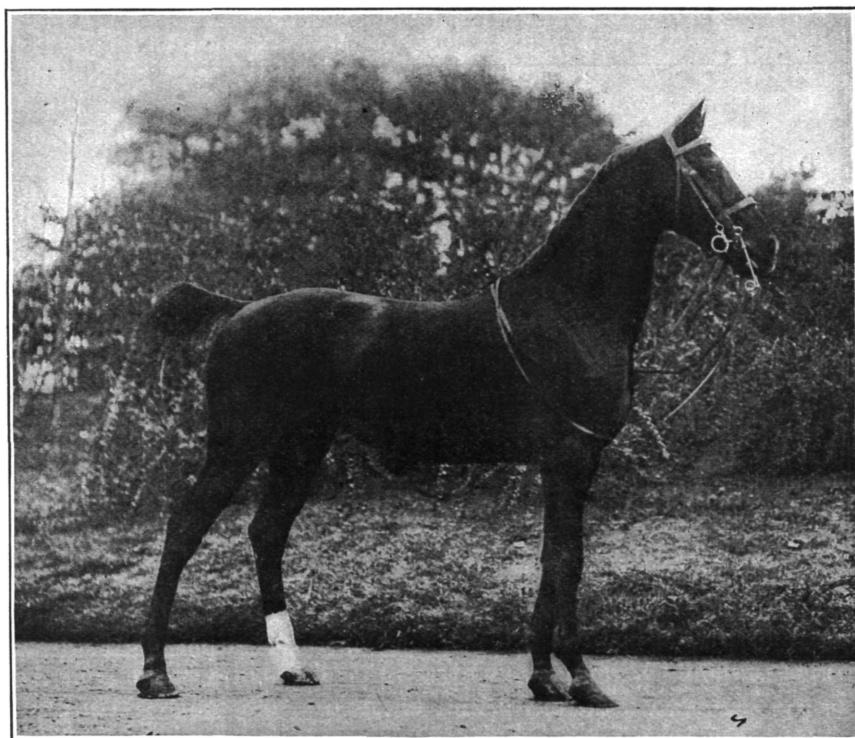


FIG. 3.—Orinda. By Logic; dam by Magic. Winner at the Blue Grass Fair in 1907 in the class for brood mares of carriage type, 4 years old and over. (Photograph by courtesy of Clifton Farm.)

ington Denmark, a grandson of the original Denmark. Crosses of Standardbred, Thoroughbred, Denmark, Clay, and Morgan therefore appear in Tattersall's pedigree.

Tattersall's mate, Eckersall, was bred by John T. Woodford, Mount Sterling, Ky. He is a full brother to Mira 2965(S.), and is therefore by Forest Denmark, dam Kitty Fogg, by Beauty, a son of Magic; second dam Puss by Rob Roy, a son of the original Denmark. In this pedigree the Denmark blood is most prominent, but Standardbred and Thoroughbred blood appear somewhat far back. Ecker-

sall's breeding is unusual on account of the large amount of Denmark in it. Denmark blood is almost exclusively saddle blood.

Another case is Emma Briggs, registered as No. 2895. She was bred by Charles McCormack, Waddy, Ky.; was foaled in 1899, and was shown under the name of "Poetry" at the Chicago Horse Show in 1902, alone and as a mate to Dainty Miss, winning with mate in class and being single reserve champion for heavy harness horses under 15.2 hands. Emma Briggs was by Chester Dare, tracing in direct male line to Denmark, and to Thoroughbred through Chester Dare's female line. Her dam was by Highlander, by Joe Young, by

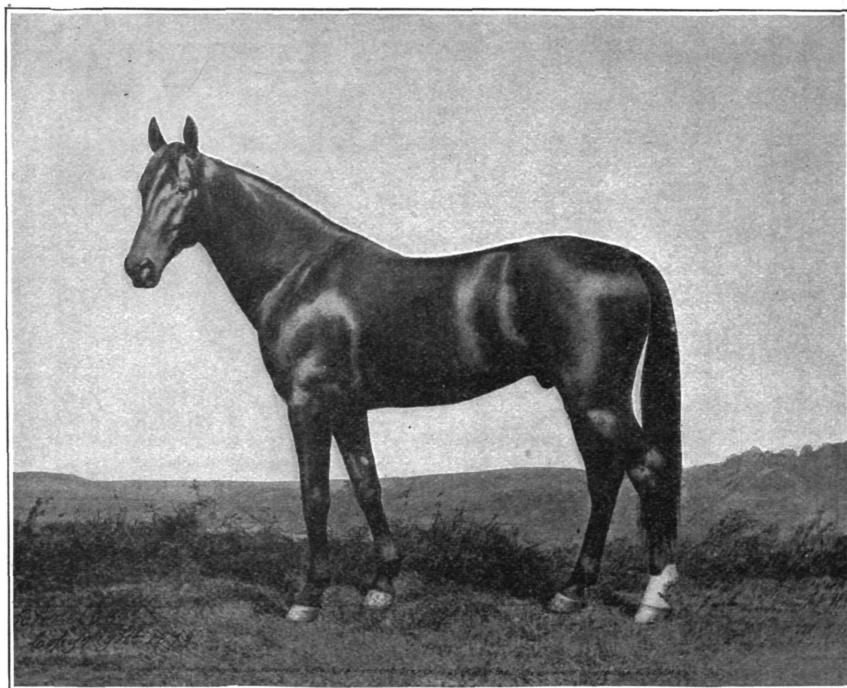


FIG. 4.—Belmont 64. Son of Alexander's Abdallah, and a horse often found in the pedigrees of American carriage horses. Belmont was the sire of Egmont, who sired Johnnie Mack, the sire of Lord Brilliant.

Star of the West, a grandson of Vermont Black Hawk. Joe Young's dam traces principally to Clay and Thoroughbred, with the Charles Kent mare, by Bellfounder, the dam of Hambletonian 10, well back in the pedigree. Emma Briggs's pedigree therefore shows Denmark, Thoroughbred, Standardbred, and Morgan, with a slight amount of Clay and old Hackney blood far back.

From the standpoint of fame in the show ring, however, first place among the carriage horses which have gone out of Kentucky must be given to Glorious Red Cloud. This horse for a period of years was, perhaps, the most sensational animal in heavy harness at the National

Horse Show, and in the opinion of some judges was the best horse that has ever worn heavy leather in America. After a brilliant show-ring career he was retired, and has since been in the stud in Massachusetts, also in Iowa, and for the past two years in Kentucky. He is registered No. 2845, is a bay, standing 15.3½ hands, weighing 1,225 pounds. His sire was Wilson's King and his dam Kit Cloud, by Wyatt's Red Cloud. Red Cloud was by Indian Chief out of a mare (the dam of Wilson's King) by Parson's Abdallah, a son of Alexander's Abdallah. The inbreeding resulting from the mating of a daughter of Wyatt's Red Cloud to King doubtless had much to do with the making of Glorious Red Cloud what he was as a carriage

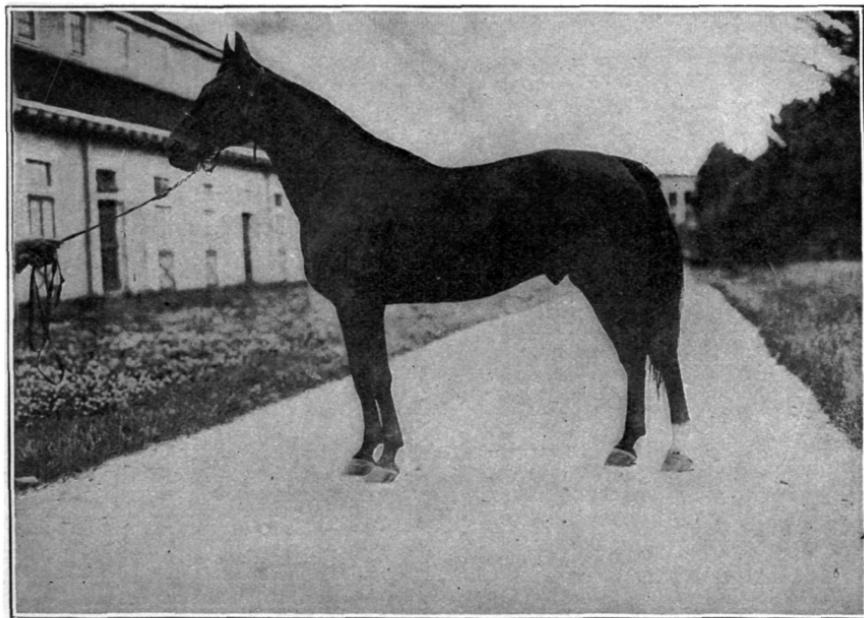


FIG. 5.—Walnut Hall. By Conductor 12256; dam Maggie Yeazer by Red Wilkes 1749. An excellent illustration of the best type of trotter. A horse not only notable as a speed sire, but one which transmits his excellent conformation and quality as well. (Photograph by courtesy of Walnut Hall Stock Farm.)

horse, because in addition to the proved value of King as a sire of carriage horses, Alexander's Abdallah is to be found more often in the pedigrees of Standardbred carriage horses than any other famous sire of trotters.

At the Blue Grass Fair in 1907, held at Lexington, Ky., there was an excellent exhibit of horses suitable to get American carriage horses. The class for mares 4 years old and over was won by Orinda (fig. 3). Orinda was sired by Logic, a Denmark-bred horse. Her dam was by Magic, already mentioned; second dam by Peavine; third dam by Stonewall Jackson; fourth dam by Walker's Grey Eagle. This pedigree shows Denmark, Thoroughbred, and Clay.

The second place in the class was won by Ahma, a daughter of Chester Lad, he by Chester Dare. Her dam was by Harrison Chief; second dam by Peavine; third dam by Cabell's Lexington. The pedigree shows Denmark on the sire's side almost to the exclusion of everything else, and on the dam's side Standardbred and Morgan.

Pedantic persons may express some astonishment at the idea of looking to a breed of saddle horses for carriage horses, but the records of the horses and their pedigrees given above are sufficient proof of the claim that the American Saddle Horse Register contains some of our best carriage blood, and that breeders who are using this

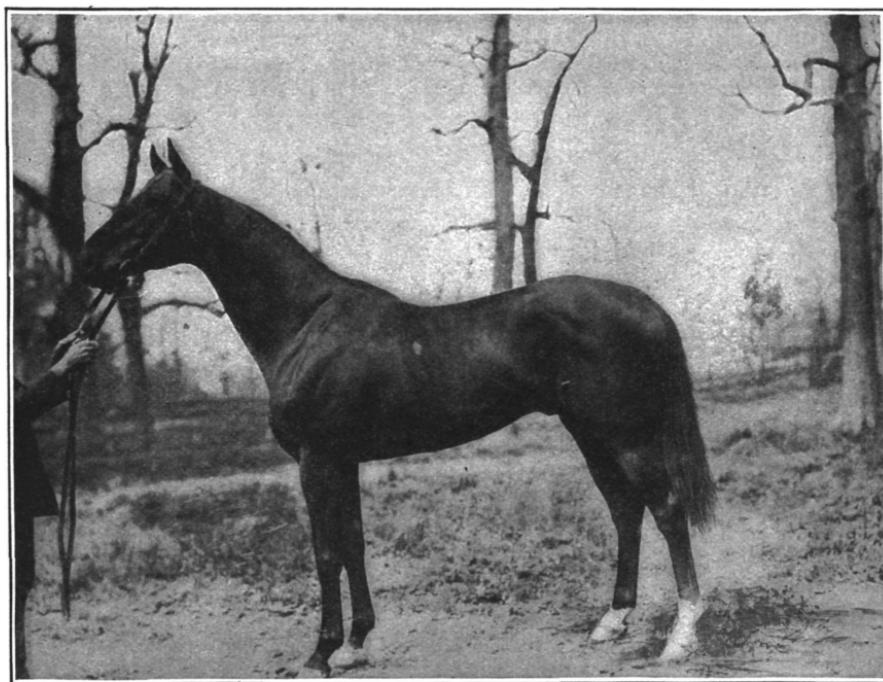


FIG. 6.—Disguise II. A noted sire of Thoroughbreds, and a very good type. The quality, finish, beautiful conformation, and great muscular development of the horse deserve special attention. This picture and the preceding one show how racing develops the "breediness" in horses. (Photograph by courtesy of Kentucky Farmer and Breeder.)

blood judiciously are acting wisely. Many of the sires which figure prominently in this line are registered also in the Morgan and Trotting registers.

#### THE STANDARDBRED AS A CARRIAGE HORSE.

In the foregoing remarks it is shown clearly that there are certain lines of breeding found in the Saddle Horse Register which can be relied upon to produce carriage horses. In Kentucky the breeding of horses for individual excellence of conformation, quality, and action

is carried to a greater degree than in any other State, and, contrary to popular opinion, the most of the men outside of the Thoroughbred establishments who make their living from horse breeding in Kentucky, in the Blue Grass counties at least, are breeding not for speed but for type. This has been going on for years, and for this reason the good, handsome horses of Kentucky have usually been appreciated, their history traced, and their descendants accounted for. If the same careful attention to points of conformation and action had been shown fifty years ago by Morgan breeders in New England, and had there been displayed the same enthusiasm for and loyalty to a

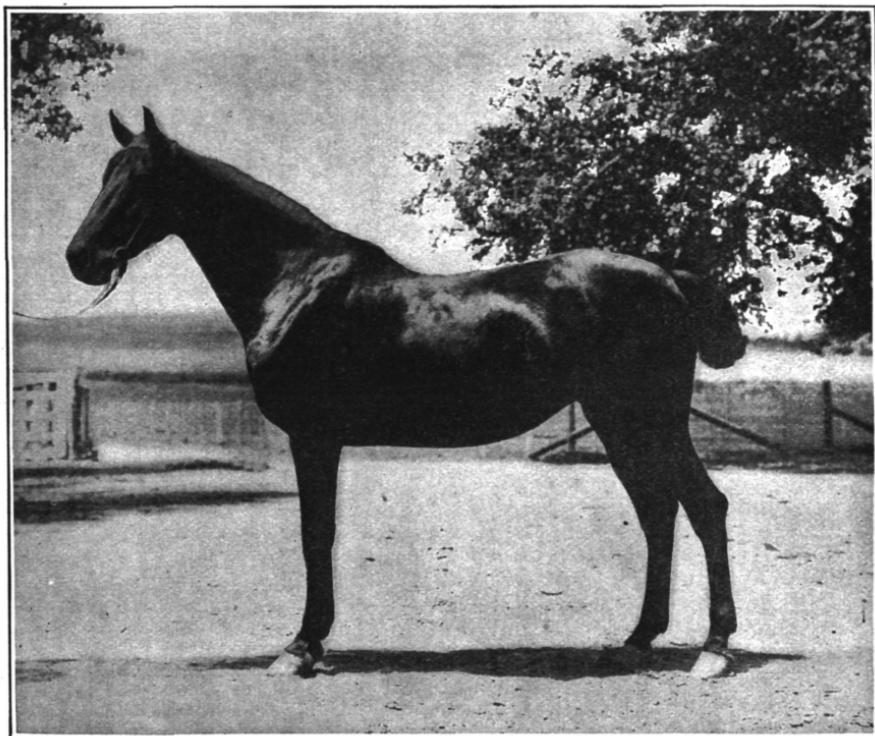


FIG. 7.—Kentucky. By Harrison Chief 1606 (S.) ; dam by Whirlwind ; second dam by Peavine 85 (S.).

valuable local type of horses, there would now be no necessity for Government aid to save the Morgan from destruction. If horsemen in the limestone sections of the corn belt had paid less attention to the speed records of the stallions in their localities and more to their individuality, the carriage-horse work of the Department of Agriculture would be out of place.

In Kentucky it is not difficult to locate descendants of the horses to which reference has been made above, and in the pedigrees of carriage horses bred there it is easy to see a family relationship. When

we get outside that State, however, and trace the breeding of straight trotting-bred carriage horses, uniformity of breeding is, with certain important exceptions, unusual.

Reference has already been made to the fact that many of the best sires of carriage-horse lines in the Saddle Horse Register are registered also as Standardbred or Morgan. One, Indian Chief, is registered in all three books. One of the most prominent of such horses—Harrison Chief—appears in two registers, but has no claim to Morgan blood; neither has he any claim to Saddle Horse blood, if we rate him strictly according to the latest action of the American Saddle Horse Breeders' Association and assign to Denmark the exclusive honor of being the head of the Saddle Horse breed. Yet this horse adds value to almost any saddle pedigree, and his record as a sire of brood mares is remarkable. As a sire of fine carriage horses he has had few equals, and as the sire of Wilson's King he will be known as one of the great horses in American history.

Harrison Chief (see fig. 1) was bred by J. W. Cromwell, Cynthiana, Ky., and was foaled in 1872, dying in 1896. He was a bay with black points, 16 hands in height. His registration in the American Saddle Horse Register bears this editorial note: "He adds style, size, and speed at the trot, and great vigor in action generally." He is registered No. 1606 in the above register and No. 3841 in the American Trotting Register. Harrison Chief's sire was Clark Chief, by Mambrino Chief, he by Mambrino Paymaster, he by Mambrino, and he by the original Messenger. Harrison Chief's dam was Lute Boyd, a mare of great quality and finish that Kentuckians talk about to this day. She was by Joe Downing, by Edwin Forrest, and her dam was practically Thoroughbred. There are still Harrison Chief mares to be found, and as a rule they are bearing out the reputation of their sire as a getter of fine brood mares. This Department is fortunate in owning some of them.

The value of Harrison Chief as a sire of brood mares is even exceeded by his importance in horse history as the sire of Bourbon Chief and Wilson's King. Bourbon Chief has been famous for years as the sire of Montgomery Chief and Bourbon King, two of the greatest modern sires of saddle horses, and others of his get are notable saddle sires. He has also sired some excellent carriage horses. As a carriage-horse sire, Wilson's King was undoubtedly his superior.

King was bred by Wilson Brothers, Bethel, Ky., and was foaled in 1881, dying July 24, 1904. He was a chestnut, standing 16 hands. His dam was also the dam of Red Cloud, by Indian Chief, a horse which has left much good stock throughout the State. This mare was by Parsons's Abdallah, a son of Alexander's Abdallah, which fact, as already suggested, it is well to bear in mind in studying the carriage-horse possibilities of the trotter. The second dam was by

Yellow Jacket, a son of Wells's Yellow Jacket, breeding that is often found well back in good Saddle Horse pedigrees. Aside from this, however, King could not be called "saddle bred."

King's record in the stud was noteworthy. Like his sire, he was a great getter of brood mares, siring among others Annie C., the dam of Montgomery Chief and Bourbon King. He also sired Glorious Red Cloud, whose record as a show horse has been already mentioned. The sons and daughters of King are highly valued by breeders and can only be obtained at high prices. It is indeed fortunate that the breeding of this horse has been preserved to history by his registration in the Saddle Horse Register. Although he is almost entirely of trotting blood, it is doubtful whether he could have been registered as Standard in the American Trotting Register.

Among other horses to which reference should be made in this connection is Mambrino King, perhaps the most famous trotting horse ever exhibited in the breeding classes at the shows. He was sired by Mambrino Patchen, generally regarded to have been a son of Mambrino Chief, although Gen. John B. Castleman, president of the American Saddle Horse Breeders' Association, argues that Mambrino Patchen was really by Gaines's Denmark. The point is upheld by the opinion of many well-informed horsemen, but does not seem to be susceptible of positive proof, and until proved we must hold to the breeding as given in the Trotting Register. That gives the breeding of Mambrino King as follows: Chestnut, foaled 1872; bred by Dr. L. Herr, Lexington, Ky.; by Mambrino Patchen, son of Mambrino Chief; dam by Edwin Forrest.

Mambrino King was used at stud and shown in Kentucky, after which he was sold to the Village Farm, East Aurora, N. Y., in whose hands he won his greatest reputation. For several years the exhibit of Mambrino King and his get was a feature of the National Horse Show at Madison Square Garden, New York, and at the disposal of the stud in 1905 his influence was plainly seen in the finish and quality of his descendants.

Taking up the breeding of Standardbred horses in other States than Kentucky, we are struck with the frequent absence of uniform family lines on which to base sure calculations. A study of the pedigrees of noted trotting-bred carriage horses is interesting.

Let us take, for example, the pedigree of the horse Samuel Stone (shown under the name of Promoter). This horse was bred by Charles E. Waters, Minneapolis, Kans., and was by Norman Medium, he by Happy Medium. Norman Medium's dam was Alice Drake, by Alexander's Norman, by the Morse Horse, dam by Pilot, jr. Promoter's dam was Susie Clay, by Talisman, by Cassius M. Clay, jr., out of a daughter of Mambrino Chief; second dam Hazel Pulling, by Harry Pulling, he by Menelaus out of a mare by Smith's Ethan

Allen, a son of Vermont Black Hawk. The only lines in this pedigree which from present knowledge we would expect to produce carriage type are the Mambrino Chief, Clay, and Morgan.

Drummer Boy, a horse of great quality, good conformation, and flashy action, was by C. V. B., by Ensign, by Enchanter, by Administration. Aside from this, little is known of his breeding. His dam was sired by Chicamauga, a horse "brought from the South during the war."

Lord Baltimore, the famous prize winner, traces in direct male line to Justin Morgan and other of the famous show horses descend from Morgan lines. Lord Baltimore was formerly known as Sharlock, and is a son of Greylock, by Harrison Gray. Greylock's dam traces to Ethan Allen in the male line.

A very famous horse in western show rings a few years ago was the Standardbred horse Warship, shown as Blaze o' Glory. This horse after a brilliant career was sold for \$5,000. Blaze o' Glory was by Masterpiece, a son of Masterlode by old Hambletonian. Masterpiece was out of a mare by Magna Charta, he by Morgan Eagle, a son of Hale's Green Mountain Morgan. Blaze o' Glory's dam was Jane B., by Lexington Chief, jr., he by Lexington Chief, a son of Kentucky Clay by Cassius M. Clay 22, out of Lady Warfield by Mambrino Chief. Lexington Chief, jr.'s dam was by Fiske's Mambrino, a son of Mambrino Chief. Jane B. was out of a mare by Magna Charta, the same horse which sired the dam of Masterpiece, Blaze o' Glory's sire. This pedigree shows a direct descent in the male line from Rysdyk's Hambletonian, but also inbreeding to Hale's Green Mountain Morgan, one of the best old Morgan sires. There are also two crosses to Mambrino Chief and one to Clay blood. The horse Morgan Eagle which appears twice in Blaze o' Glory's pedigree also appears in that of Glorious Whirling Cloud, mentioned below.

Glorious Whirling Cloud, shown as one of the "Glorious" four in which Red Cloud and Carmon also appeared, is registered as Don Edwood. He is a brown horse, 15.2 hands in height, weighing 1,140 pounds. He was foaled in 1892 and was bred by Martin L. Haines, Mount Holly, N. J. His sire was Don Ogden, by Kentucky Prince, a son of Clark Chief, the sire of Harrison Chief. Kentucky Prince was out of a mare by Morgan Eagle, a son of Hale's Green Mountain Morgan. Don Ogden's dam was by Electioneer; second dam by Mambrino Pilot. Glorious Whirling Cloud's dam was Electric Light, by Haven Star, a son of Conklin's American Star, by Seeley's American Star; second dam by Stephen A. Douglas, by Rysdyk's Hambletonian. This pedigree shows rather more than a usual amount of the carriage blood, if we may call it such. In fact, it is a very good pedigree from a carriage standpoint. One cross to Clark Chief and

Mambrino Chief and two to Morgan (granting Seeley's American Star to have been by Cock of the Rock, son of Sherman Morgan) would naturally tend to produce a carriage type. It is interesting to note that Glorious Whirling Cloud has been secured by the Iowa Agricultural College to stand during the season of 1908 at the college farm at Ames.

Sharing honors with Glorious Red Cloud as a show horse, Lord Brilliant is a horse whose castration was a mistake equaled only by that of the famous Hackney sire Forest King. Lord Brilliant won the Waldorf-Astoria cup three times, but only twice as the property of one exhibitor, for which reason it remained in the hands of the

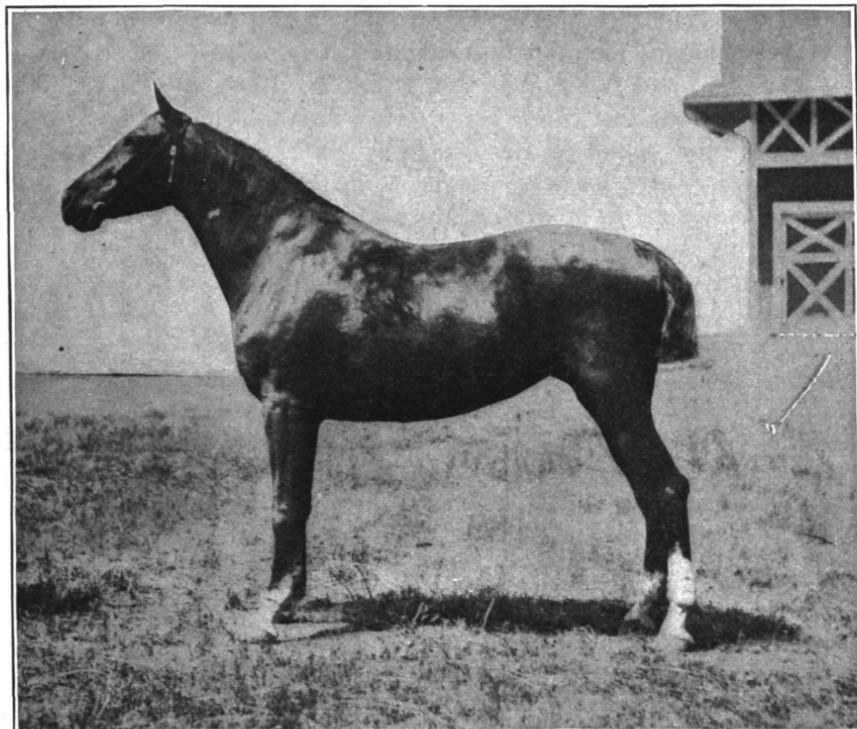


FIG. 8.—Washington. By C. H. Purcell 25226; dam by Clermont, a son of Red Wilkes.

horse-show association until finally won by Forest King. Lord Brilliant was by Johnnie Mack, he by Egmont, by Belmont, and he by Alexander's Abdallah. His dam was Barbara E., by Uh Wharie. The breeder of Lord Brilliant was I. N. Suter, Golden, Ill., a man whose reliability and honesty are vouched for. So far as blood lines go, Lord Brilliant's pedigree is notable in only one respect, but that a most important one—that his grandsire in the male line was Egmont, by Belmont, a son of Alexander's Abdallah.

The pedigree of Nala, champion heavy harness horse 15.2 hands or over at the 1907 New York show, is in doubt. The horse is said

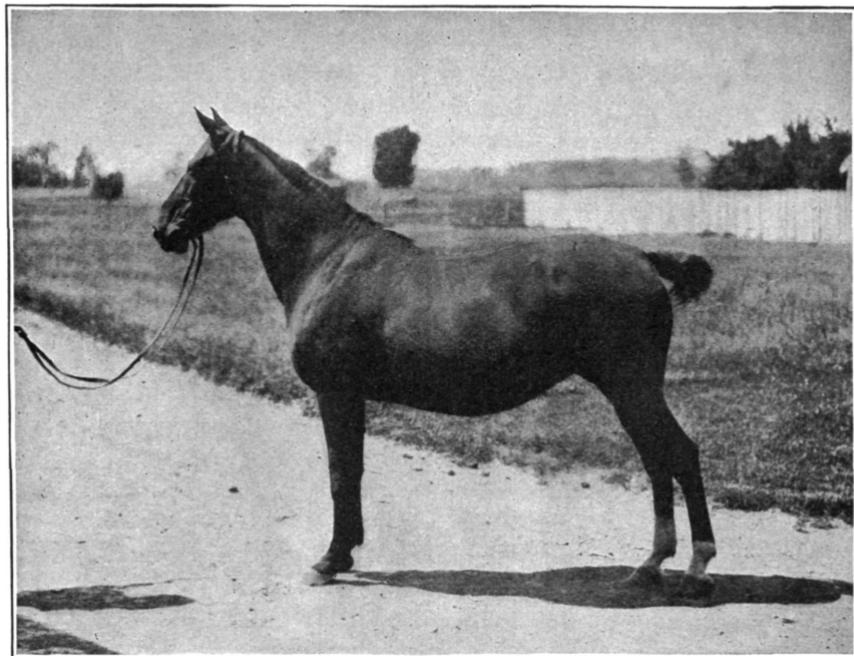


FIG. 9.—Michigan. By Prince L. 5947; dam by Temperance 6819.

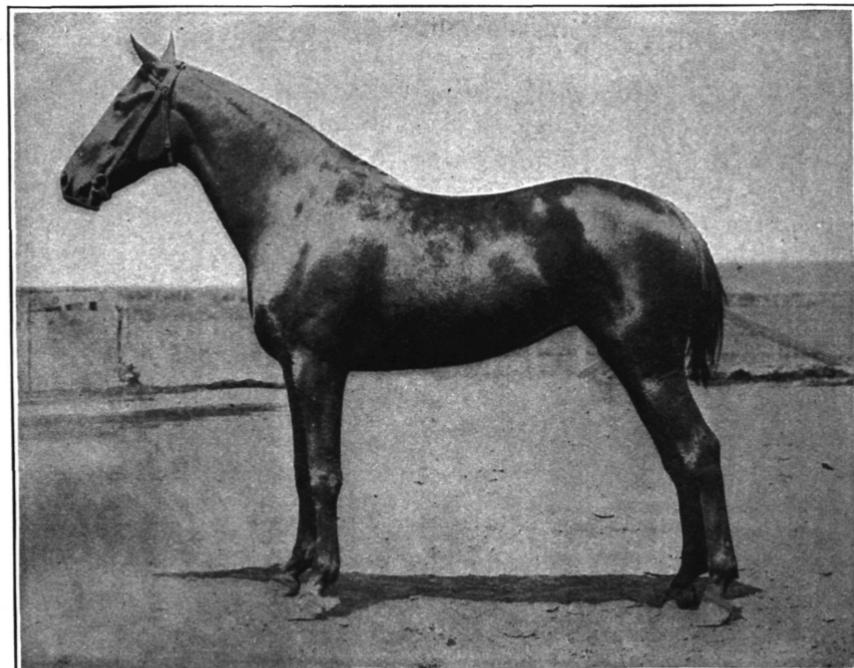


FIG. 10.—Georgia. By Norcatur 17855; dam Miami by Bay Star 11267.

to have been bred in Missouri, where he was known as Dave Telluride, and his breeding is given as follows: By George Telluride, he by Telluride, dam Eliza Jane, by Harkaway; second dam by France's Alexander; third dam by Pacing Abdallah, by Alexander's Abdallah. This pedigree sheds very little light on the carriage-horse problem. The crosses of Morgan, Clay, and Alexander's Abdallah are far back in the pedigree, and the Alexander's Abdallah cross is through a pacing son, and therefore not valuable.

The pedigree of Sir James, reserve to Nala at the 1907 New York horse show, is better known than that of Nala, although it does not run very strongly to the lines one would expect. Sir James was by Bow Bells, out of a mare by Red Wilkes, whose dam was by Mambrino Chief. It is interesting to note that an American trotting-bred horse known as Belford, now belonging to an English stable and said to have been shown successfully in England, is bred similarly, except that his dam was by Sentinel Wilkes instead of by Red Wilkes.

The important coincidence in most of these pedigrees is that almost invariably the names of various Morgan sires or of Alexander's Abdallah, Mambrino Chief, and sires of the Clay family appear. After a somewhat exhaustive study of the pedigrees not only of trotting-bred show horses especially, but of handsome Standardbred horses in general, the writer has reached the conclusion that, as a rule, when the famous Kentucky "saddle" lines do not appear, the blood of these families will be found; also that this blood is exceedingly valuable in producing good-looking horses, and that in the breeding of American carriage horses we must place a high value on it. Among more modern families certain Wilkes strains are coming into prominence, such as the sons and grandsons of Jay Bird. The results of the exhibition of American carriage horses at the State fairs will increase our knowledge on this subject.

#### THE WORK OF THE DEPARTMENT OF AGRICULTURE.

Specific work in horse breeding by the United States Government was first made possible by the inclusion in the appropriation act for the fiscal year ended June 30, 1905, of an item of \$25,000 for experiments in animal breeding and feeding in cooperation with State agricultural experiment stations. This appropriation was made as a result of efforts on the part of Mr. Eugene H. Grubb, of Carbondale, Colo., a member of the Colorado State board of agriculture, and Prof. W. L. Carlyle, of the Colorado Experiment Station. When it became available the exact nature of the work to be undertaken was decided upon only after careful consideration. The Colorado interests were anxious to take up work in horse breeding, believing that the Colorado soil and climatic conditions provided excellent opportunities for the

production of horses of quality, substance, and great endurance. Finally, carriage-horse breeding was decided upon.<sup>a</sup>

The reasons for taking up the breeding of carriage horses have been fully set forth in other publications, in articles for the press, and in public addresses, but a recapitulation here may not be out of order. Briefly stated, they were: That carriage horses are as a rule the most valuable class on the market; that as a result of the strong demand the supply was gradually diminishing, and that notwithstanding all the importations of the carriage type from abroad, the preferred horse was the American horse. Most important of all, however, was the feeling that steps should be taken to correct the practice of castrating valuable stallions and selling valuable mares for other than breeding purposes. The Department also felt that, although probably nothing could wean the American horseman from his attachment to the Standardbred horse, the most useful characteristics of this horse should be preserved if it would continue to be of high value to the farmers of the country. A word upon this point will allay any fears that the Department intended a direct attack on the Standardbred horse as a speed producer. Using the latest figures available, the remarkable predominance of the Standardbred horse over all other breeds in America can be shown.

Up to June 30, 1907, 206,015 Standardbred trotters and pacers had been registered. These horses comprised more than one-half of the horses of all breeds registered up to that date and over 70 per cent of all the light horses registered, including Saddle Horses, Morgans, and Shetland ponies. If we eliminate the Saddle Horses and Morgans, and, therefore, all duplicates, more than three-fourths of all the light horses which have been registered in the United States have been Standardbreds. Some geldings are included in these figures, so that the number which have been available for breeding purposes is really somewhat lower, but it is probably counterbalanced by the fact that some horses which have made standard time are not actually registered in the American Trotting Register. No other breed begins to approach the Standardbred horse in popularity in the United States. In numbers registered the Thoroughbred and the Percheron are nearest to it, but neither has more than one-fourth the number.

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<sup>a</sup> In addition to this, work was begun with the Alabama Experiment Station in southern beef production and with the Maine station in poultry breeding. Since that time the breeding and feeding experiments have developed so as to include, in addition to the above-mentioned work, Morgan horse breeding in Vermont, breeding gray draft horses at the Iowa station, breeding milking Shorthorns at the Minnesota station, feeding steers at the Missouri station, animal nutrition work at the Pennsylvania station, and breeding range sheep at the Wyoming station. The annual appropriation has been \$50,000 since July 1, 1907.

In spite of this showing, which plainly indicates that the Standardbred horse is our national horse and that he is bred and handled by four times as many of our people as any other breed, the fact can not be overlooked that few persons can afford to breed a Standardbred horse solely for the speed which he may eventually develop. No line of stock breeding is so uncertain as breeding race horses—a fact shown emphatically by Wallace's Yearbook. To the close of 1907, 38,296 horses had made standard time (2.30 trotting or 2.25 pacing). This is only 18.59 per cent of the total number registered on June 30 of that year. Of this number, 11.29 per cent of the total were trotters and 7.30 per cent pacers. Everyone knows that a horse must make better than 2.30 to be really profitable on the track, and as a pacing horse is not in great demand except for matinee purposes and the race track, this leaves the breeder of Standardbred horses only about one chance in nine of getting a horse that even approaches being a profitable investment unless he has in mind some other breeding standard than speed. Using the figures for 2.10 horses in a similar way, we get a very fair idea of the chances of breeding a horse which, as a racer, is really profitable. To the close of 1907, 318 horses had made 2.10 trotting and 846 had made that time pacing, a total of 1,164. This number is only 0.57 per cent of the total number of Standardbred horses registered. Of all 2.30 trotters only 1.37 per cent have made 2.10 time, and of all 2.25 pacers the percentage is only 5.62.

It is a fact that there is a large number of horses whose records lie between 2.20 and 2.10 which yield a fair return on the investment, and it is probably true that some are made to pay whose best time is slower than 2.20. It is also true, however, that the relative number of 2.10 horses is measurably increasing, and of course the profit to be derived from slower horses is decreasing in direct ratio. The breeding of horses for speed is a business in which the chances are nearly all against the breeder. It is a game in which only the man of means can afford to indulge.

The purpose of these remarks is not to discriminate unjustly against the light-harness race horse. He has a valuable place in animal husbandry. As the Thoroughbred was developed in England, so are we developing the Standardbred in America, and we may reasonably expect the effect of this horse on American light stock to be similar to that of the Thoroughbred on the light breeds of Europe. Training, campaigning, and long selection for speed rapidly eliminate everything but the fittest, and we have as a result a hardy stock with great quality and stamina. Such a stock is able to transmit its quality and stamina when used judiciously on coarser native stock.

The figures quoted above, however, show emphatically that extreme speed in the Standardbred horse is, in the long run, his least valuable asset. It is his ability to improve the average run of light

horses and his inherent possibilities for the development of useful market types that make him most valuable to the farmer.

With the practice of castrating some of the most valuable trotting-bred stallions, constantly making more difficult the development of some of the most useful traits of the native horse, the value of the breed to the farmer was constantly being endangered. Until the Department undertook this work no one had made a consistent, systematic, and long-continued effort to improve and fix these qualities, and even trotting-horse men were prone to overlook the great value the breed possessed outside of its ability as a race horse. It was to save these valuable marketable characteristics and to show how the national horse could be made more valuable to the farmer that the Department undertook the work of developing a carriage horse from native material.

When this work was begun the ultimate use of foreign blood was considered a possibility. As the work has progressed, however, and greater knowledge has been gained of available blood lines and their characteristics, it has become clear that the probability of a resort to foreign crosses is very remote.

It is gratifying to those in charge of this work to know that already the attention of the farmers and breeders of the country has become strongly attracted to the more useful characteristics of the Standardbred horse. The argument that it is not possible for a carriage horse to be evolved from the Standardbred because the racing or roadster type and the carriage type are essentially antagonistic no longer carries much weight. That the carriage type is a prevalent one in the trotter can no longer be denied, and in view of our rapidly increasing knowledge of the breeding of carriage horses from trotting stock it is no longer denied that the production of the carriage type in our horses is more a matter of direct inheritance than of accident.

#### THE COLORADO WORK, BREEDING CARRIAGE HORSES.

The first purchase was made in December, 1904, from a Wyoming breeder by Messrs. Grubb and Carlyle, and comprised six mares in foal to a French Coach horse. The colts resulting from this mating were castrated, and, with the surviving fillies, will be sold during the present year, as the fillies will not be used by the Department for breeding. The second purchase was made in February, 1905, by a board composed of Prof. W. L. Carlyle, Director C. F. Curtiss, of the Iowa Experiment Station, and the Animal Husbandman of the Bureau of Animal Industry. Dr. D. E. Salmon, then Chief of the Bureau of Animal Industry, and Prof. W. M. Hays, Assistant Secretary of Agriculture, assisted. This purchase included the stallion Carmon (formerly shown as Glorious Thundercloud) and 12

mares, most of them bred in the corn-belt States and in Kentucky and nearly all of which had had a show-ring career. The next purchase was made in June, 1906, by Professor Curtiss and the writer, and included the mares Beatrice and Mambrina. Beatrice was sired by Highland Denmark, out of a daughter of Harrison Chief, and Mambrina is by King Lancelot, a son of Mambrino King, out of a daughter of Mambrino King.

The latest purchase was made in March, 1908, by the original pur-

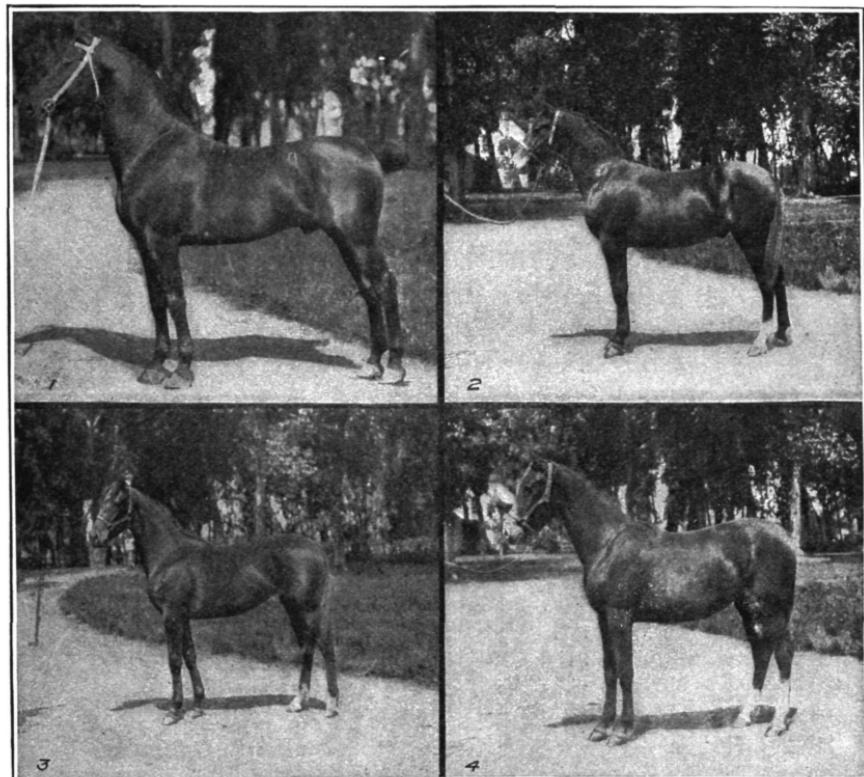


FIG. 11.—Uniformity in the get of a prepotent sire. Carmon and three of his first get in the Department's experiment in cooperation with the Colorado Experiment Station. Get photographed as yearlings. 1, Carmon; 2, Albion, dam Arizona; 3, Alba, dam Wyoming; 4, Annette, dam Iowa.

chasing board, and comprised four mares from different breeders in Kentucky. These mares were bred along lines shown in the foregoing pages to be excellent for the production of horses of the carriage type. Three were sired by Wilson's King and the fourth by Chester Dare, the grandsire of Ahma, second prize carriage brood mare at the 1907 Blue Grass Fair. Chester Dare was also the sire of Emma Briggs, already mentioned. The dams of these mares were sired by Wyatt's Red Cloud, Bourbon Chief, Sim's Clark Chief,

and Peavine. This is the best blood for the production of horses for carriage purposes which can be obtained in Kentucky at the present time. It is proved blood, and the addition of such stock to the stud is an experiment only in so far as any mating is an experiment. The mares were all in foal when purchased, and since the purchase all have foaled, one filly and three colts resulting. There are two colts by Bourbon King out of Barthenia McCord and Elvira Lindsay,<sup>a</sup> respectively, a filly by Cloud King out of Bethel Princess, and a colt by Golden King out of Golden Picture. The first two mares are to be bred back to Bourbon King and the last two to Golden King before being shipped to Colorado. It is the intention to breed them eventually to Carmon. That this will probably be a successful combination of blood lines is shown by the good results of mating Beatrice and Carmon. If the Harrison Chief and Denmark lines mate well with Carmon we may expect even better results when using the blood of Red Cloud and Peavine through the female lines. The use of daughters of Wilson's King is also regarded as a safe venture, in view of the excellent stock got by this horse. Many of his colts are to be found throughout the eastern Blue Grass counties, and almost without exception they show excellent carriage type and action.

In view of the fact that the blood lines represented in the purchase of the mares by Wilson's King are of the highest value for carriage production, there is no reason to fear that these mares will not produce satisfactorily. The use of strictly saddle blood, however, and the cross to horses which are, strictly speaking, saddle horses require a word of explanation.

When the carriage-horse breeding work was in its first stages, Ex-Secretary of Agriculture Norman J. Colman, the breeder of Carmon, suggested that the judicious use of saddle blood would probably be found desirable as a source of high finish and quality. Events have justified the prediction. The cross of Beatrice (by Highland Denmark, dam by Harrison Chief) to Carmon produced a foal of beautiful finish, conformation, and action. Although it is strictly saddle blood, Denmark blood is not, as a rule, natural racking blood. Highland Denmark was not a naturally racking horse, but racked only when forced to do so. The same can be said of Bourbon King. What is more, their progeny have, as a rule, a straight, true trot, with no inherent tendency to rack. That removes the usual objection to the use of strictly saddle blood in moderate amount in the production of carriage horses. In type, however, both of these horses would be classed as saddle horses, but the great quality and finish of this type are desirable in a carriage horse as much as in a saddle horse. By

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<sup>a</sup> Since this article was written Elvira Lindsay's colt has died.

proper matings and selection we hope to eliminate the saddle type but retain the desirable finish and quality. The arguments for the use of a saddle cross, such as we obtain from Highland Denmark and Bourbon King, are similar to those that may be made for the use of a judicious amount of Thoroughbred blood. The type itself is not exactly what one would regard as ideal from a carriage point of view, but the finish and quality which are obtained more than offset this, and the proper adjustment of type can readily be accomplished by suitable selections in subsequent breeding.

In the mating to Golden King we have one that is excellent for carriage breeding. The horse is much more a carriage horse than a saddle horse, both in general conformation and in action. He also possesses abundant substance, quality, and finish. He is a son of Wilson's King, out of Indian Queen, a daughter of Wyatt's Red Cloud. Inheriting the well-known carriage characteristics of these families, Golden King is a promising sire of carriage horses. Like Highland Denmark and Bourbon King, he is a straight-line trotter and racks only when forced to do so.

In addition to the horses purchased by the Department, several mares have been presented to the Colorado station and placed in the stud subject to the same restrictions as the others.

The work is carried on in a strictly cooperative manner. Horses are purchased by the board already referred to, which represents the Department and the station, with a third member chosen by the Department with the approval of the station. With the exception of the gifts to the station all additions to the stud from the outside are paid for by the Department and remain its property, the Department paying the traveling expenses of the board and the per diem of the third member. The Department pays the entire salary of the head groom and a fair proportion of that of the expert in charge of the work. The station provides all buildings, improvements, and land as an offset to the cost of purchases. All other expenses are shared equally by the Department and the station. A careful compilation of expenses from the beginning shows that practically the same amount has been spent by each party, the Department's expenditure being slightly in excess of that of the station.

Under the terms of the agreement for the work foals bred after purchase become the property of the station, but the station may not sell them or use them for breeding except at the station without the approval of the Department. An option for the purchase of any and all progeny rests in the Department, and any funds derived by the station from sales and service fees must be used in the conduct of the work. Stallions may be used on mares owned by private individuals which are approved by the officer in charge.

## STUD RECORDS IN COLORADO.

Three crops of foals have been sired by Carmon, including that of 1908. The record of the horse at stud and the produce records of the mares are given below as a matter of record.<sup>a</sup>

## STALLION.

## CARMON, b. h., 32917.

Bred by Norman J. Colman, St. Louis, Mo.; foaled, 1895; height, 16 hands; weight, 1,200 pounds. Sire Carnegie 8405; dam Monitor Maid, Vol. XI, A. T. R., by Monitor 1327. Purchased February, 1905.

*Service record of Carmon, 1905-1907.*

Year.	Mares served once.	Mares returned.	Total mares served.		Foals got.
			In experiment.	Owned by private citizens.	
1905.....	12	18	19	11	24
1906.....	17	15	21	11	15
1907.....	22	23	21	24	.....

In addition to Carmon, his son Albion, out of Arizona, is being bred to a few mares this year, and one mare was bred to Alva by Carmon out of Washington.

## MARES.

## ARIZONA, b. m.

Bred by George D. Rainsford, Diamond, Wyo.; foaled 1899; sire Emigrant; dam Hoyden, by Red Bud (Th.). Purchased December, 1904.

1906, April 9, b. c., Albion, by Carmon 32917.

1907, missed.

## BEATRICE, b. m. 2079 (S.).

Bred by Gay Brothers, Pisgah, Ky.; foaled 1901; sire Highland Denmark 730 (S.); dam Lady Adams 2074 (S.). Purchased June, 1906.

1907, September 14, b. f., Belladonna, by Carmon 32917.

## CALIFORNIA, br. m.

Height 15.3½ hands; weight 1,140 pounds. Purchased February, 1905.

1906, April 7, c., Apollo, by Carmon 32917.

1907, June 21, f. by Carmon 32917. (Destroyed; unsound.)

1908, June 9, b. f. by Carmon 32917.

<sup>a</sup> In giving registry numbers the following system is used to indicate the register in which any given number appears: Those in the American Trotting Register are printed open, thus: Carmon 32917. Those in the American Morgan Register are printed in parentheses, thus: General Gates (666). Those in the American Saddle Horse Register are followed by a capital S in parentheses, thus: Barthenia McCord 3223 (S.). Thoroughbred horses are designated thus: (Th.). The same system is followed in giving the stud records at the Morgan Horse Farm and in the pedigrees at the end of this article.

## COLORADO, b. m.

Bred by George D. Rainsford, Diamond, Wyo.; foaled 1896; sire Emigrant; dam Hebe, a fine bay carriage mare, untraced.

1906, June 14, b. f., Amber, by Carmon 32917.

1907, June 9, f., Bernice, by Carmon 32917.

1907, November. Aborted.

## DAKOTA, br. m.

1906, May 10, c., Archie, by Carmon 32917.

1907, May 19, c., Balfour, by Carmon 32917.

1908, May 5, b. c. by Carmon 32917.

## FLORIDA, b. m.

Purchased February, 1905.

1906, May 28, f. by Carmon 32917; died at birth.

1907, May 24, c., Bijou, by Carmon 32917; died May 11, 1908; blood clot in heart.

1908, May 29, b. f. by Carmon 32917.

## GAIETY GIRL.

1908, April 30, br. f. by Carmon 32917.

## GEORGIA, b. m.

Bred by Walnut Park Farm, St. Joseph, Mo.; foaled 1900; height 15.1½ hands; weight 1,000 pounds; sire Norcatur 17855; dam Miami, by Bay Star 11267.

Purchased February, 1905.

1906, April, f. Aborted.

1907, July 14, c., Ben Hur, by Carmon 32917.

1908, June 17, b. c. by Carmon 32917.

## IDAHO, br. m.

Bred by George D. Rainsford, Diamond, Wyo., foaled 1899; sire Chugladdie; dam Hill Bud, by Red Bud (Th.).

1906, July 9, f., Amelia, by Carmon 32917.

1907, missed.

## ILLINOIS, bl. m.

1906, April 20, c., Arden, by Carmon 32917.

1907, October 25, c., Brownie, by Carmon 32917; castrated June 13, 1908.

## INDIANA, br. m.

Height, 15.1½ hands; weight 1,080 pounds. Purchased February, 1905.

1906, March 28, f., Alpha, by Carmon 32917.

1907, May 1, f., Bonita, by Carmon 32917.

1908, March 15, b. f., Clara, by Carmon 32917.

## IOWA, gr. m.

Bred by Charles Haskins, Davenport, Iowa; sire, Judge Blair; dam by Forward 1961. Purchased February, 1905.

1906, March 5, f., Annette, by Carmon 32917.

1907, September 9, c., Bonnie Boy, by Carmon 32917.

## KENTUCKY, br. m.

Bred by John T. Hughes, Lexington, Ky.; foaled 1892; height, 16 hands; weight, 1,215 pounds; sire by Harrison Chief 1606 (S.); dam by Whirlwind. Purchased February, 1905.

1906, February 27, f., Anita, by Carmon 32917.

1907, April 20, f., Belva, by Carmon 32917.

## MAMBRINA, ch. m. 2400 (S.).

Bred by Village Farm, East Aurora, N. Y.; foaled April 6, 1901; sire King Lancelot 32855 by Mambrino King 1279; dam Snowdrop 2398 (S.). Purchased June, 1906.

1908, April 27, ch. c. by Carmon 32917.

## MICHIGAN, b. m.

Bred by C. J. Monroe, Bangor, Mich.; height, 16 hands; weight, 1,105 pounds; sire Prince L. 5947; dam by Temperance 6819. Purchased February, 1905.

1906, March 21, f., Ada, by Carmon 32917.

1907, September 12, b. f. by Carmon 32917.

## MINNESOTA, ch. m.

Bred by James Gibbons of Ohio; foaled 1895; height, 16.1 hands; weight, 1,415 pounds; sire by Harrison Chief 1606 (S.); dam by Britton. Purchased February, 1905.

1906, February 27, aborted twins, by Carmon 32917.

1907, May 11, f., Boralma, by Carmon 32917.

1908, May 23, b. f. by Carmon 32917.

## MONTANA, b. m.

Bred by George D. Rainsford, Diamond, Wyo.; foaled 1899; height, 15.3½ hands; weight, 1,150 pounds; sire Chappy, by Emigrant. Purchased December, 1904.

1906, missed.

1907, May 5, c. by Carmon 32917. (Destroyed; unsound.)

1908, May 13, b. c. by Carmon 32917.

## NEVADA, b. m.

Bred by George D. Rainsford, Diamond, Wyo.; foaled 1899; height, 15.2 hands; weight, 1,085 pounds; sire Emigrant; dam Gila, by Red Bud (Th.). Purchased December, 1904.

1906, missed.

1907, missed.

1908, May 13, b. c. by Carmon 32917.

## VIRGINIA, b. m.

Height, 15.3½ hands; weight, 1,225 pounds. Purchased February, 1905.

1906, April 4, f., Arba, by Carmon, 32917.

1907, May 13, f., Beula, by Carmon 32917.

1908, May 16, ch. f. by Carmon 32917.

## WASHINGTON, ch. m.

Bred by a Mr. Rodgers, Lebanon, Ohio; foaled 1899; height, 16.1½ hands; weight, 1,200 pounds; sire, C. H. Purcell 25226; dam by Clermont, by Red Wilkes 1749. Purchased February, 1905. Died from rupture of blood vessel September, 1907.

1906, March 23, c., Alva, by Carmon 32917.

1907, March 18, c. by Carmon 32917. Died at birth.

## WISCONSIN, b. m.

Bred by August Uehlein, Milwaukee, Wis.; foaled July 15, 1901; height, 15.1 hands; weight, 1,200 pounds; sire Messenger Wilkes 3743; dam a Phallas Chief mare by King Piedmont 10983. Purchased February, 1905.

1906, March 15, c., Avon, by Carmon 32917.

1907, September 5, c., Badger Boy, by Carmon 32917.

## WYOMING, b. m.

Bred by George D. Rainsford, Diamond, Wyo.; foaled 1896; height, 15.3½ hands; weight 1,180 pounds; sire Red Bud (Th.); dam Lady Shepherd, by Sparton, jr. Purchased December, 1904.

1906, May 28, f., Alba, by Carmon 32917.

1907, May 12, f., Bamba, by Carmon 32917.

1908, April 25, b. f. by Carmon 32917.

Carmon's record as a sire has been very satisfactory. He is a sure breeder and exceedingly prepotent. His colts have an abundance of size and, in many cases, splendid action. The matter of size in the American carriage horse is shown by the Colorado work to be one of good care and feeding as much as selection. The young stock at Fort Collins have all the size that could be desired. That point may be considered definitely settled.

## THE VERMONT WORK, BREEDING MORGAN HORSES.

The first suggestion that the Department of Agriculture take steps to save the Morgan horse from extinction came from the late Senator Redfield Proctor, chairman of the Senate Committee on Agriculture, and was made in 1904 shortly after the passage of the original appropriation for cooperative breeding and feeding experiments. The influences that were slowly driving the Morgan to the wall have been discussed previously, as well as the value of the blood to the horse stock of the country. However, the Morgan type and Morgan blood lines still exist, not only in Vermont but in Illinois, Missouri, and other States.

Morgan breeding was arranged for in cooperation with the Vermont Experiment Station in the fall of 1905, on the farm of the station. No purchases were made, however, until June, 1906, when seven mares and two fillies were purchased from various persons in Vermont by a board composed of Mr. Cassius Peck, of the Vermont Experiment Station, Professor Curtiss, and the Animal Husbandman of this Bureau. The mares were in foal at the time of purchase or were bred immediately thereafter. In making the selections for the Morgan stud the effort was made to get the true Morgan type with an increase in size and quality over that possessed by the old Morgan. However, type was not sacrificed to size. When it was necessary to

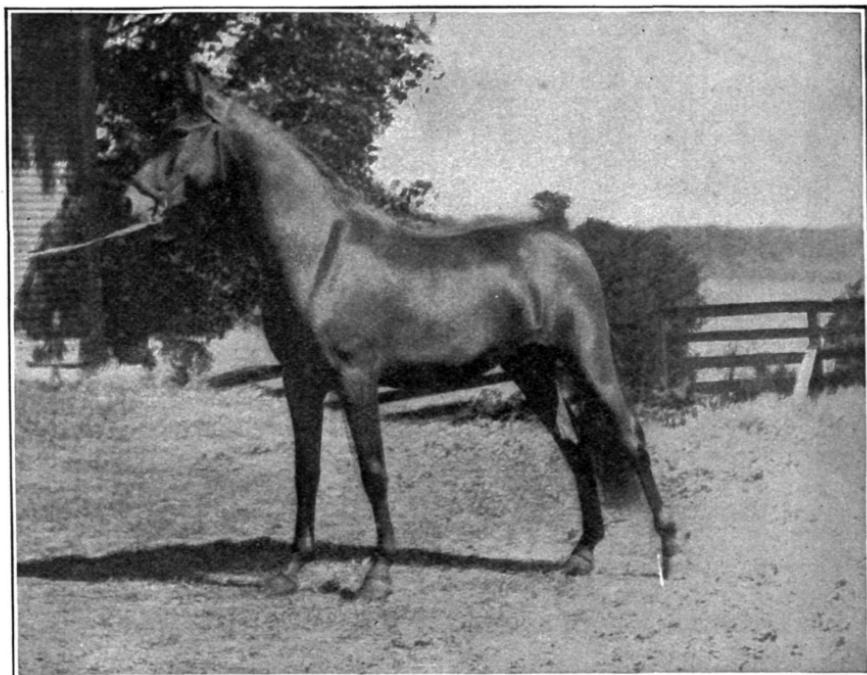


FIG. 12.—Lillian Gates. By General Gates; dam Caroline by Daniel Lambert. (Photograph taken as a 2-year-old.)

go below the prescribed size to get the desired type this was done. The Department advertised for mares described as follows:

They should be from 5 to 8 years old, standing 15.1 to 15.3 hands, and weighing 1,000 to 1,150 pounds. Colors preferred, brown, bay, or chestnut; grays or blacks should not be submitted unless they are exceptionally good individuals. Mares submitted for inspection should be sound, with good conformation, style, and action, and a pure trotting gait. They should be well bred along Morgan lines, but registration in the American Morgan Register will not be necessary for purchase.

Of the mares purchased in Vermont, all but three were registered or eligible to registration in the American Morgan Register.

After the purchases in Vermont Professor Curtiss and the writer spent some time in Kentucky and purchased two mares sired by Harrison Chief out of mares by Coleman's Eureka and Cabell's Lexington, respectively. This purchase was an experiment, its idea being based on the facts mentioned above and on the belief that a careful outcross, made by selecting blood of Harrison Chief on a Morgan foundation, would give increased size and quality without being violent and likely to destroy desirable type characteristics. One of the mares purchased in Kentucky—Mrs. Culvers—was in foal to Highland Denmark and dropped a filly of excellent Denmark type in 1907. The Kentucky purchase <sup>a</sup> has caused considerable comment on account

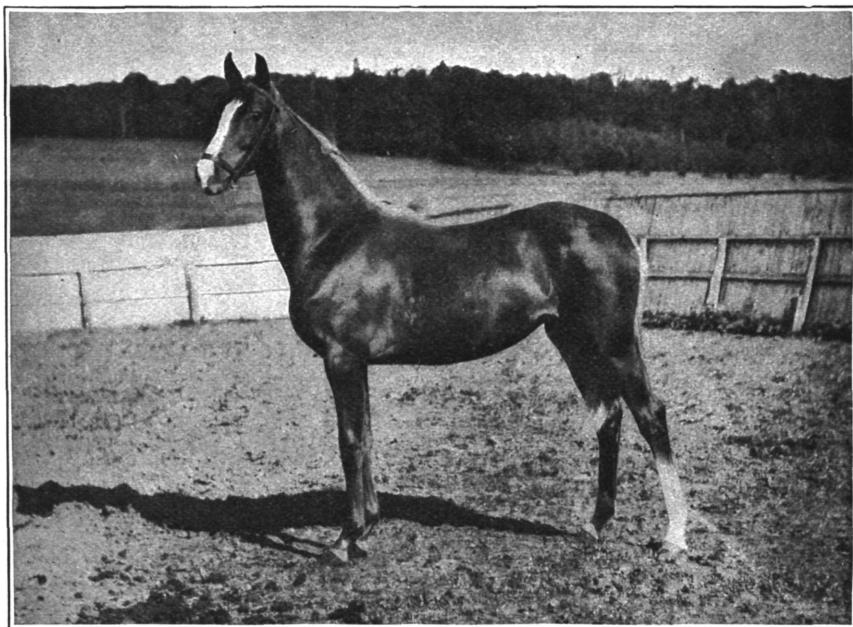


FIG. 13.—Helen. By General Gates; dam Caroline by Daniel Lambert. (Photograph taken as a yearling, on the day the filly was purchased by the Department.)

of its novelty, one critic going so far as to say that the Department was attempting to restore the Morgan type by the same method used to destroy it. Waiving comment on the critic's manifest lack of knowledge of the horse types and blood lines in Kentucky, it may be

<sup>a</sup> In addition to the purchase mentioned, one of the Vermont mares, Ianthe Hinds, was bred in the summer of 1907 to the young horse Battle Ax, who was sired by Montgomery Chief out of the mare Daisy Graves, the only filly foaled by the dam of Highland Denmark. Daisy Graves was by Allegro, a son of Ethan Allen, out of a granddaughter of Mambrino Chief. The result of this breeding was a filly foal.

pointed out that this cross is radically different from the cross of Standardbred and Morgan for the sole purpose of increasing speed. It was a speed craze, much more than a type craze, which did most to start the Morgan to destruction.

If the Kentucky breeders of fifty years ago found it to their advantage to go to Vermont for Morgan horses of good type to use on Kentucky stock, and if the use of those horses proved valuable, two things are, in the writer's opinion, made clear. First, that the Morgan blood is of the greatest value to the horse industry of the country;

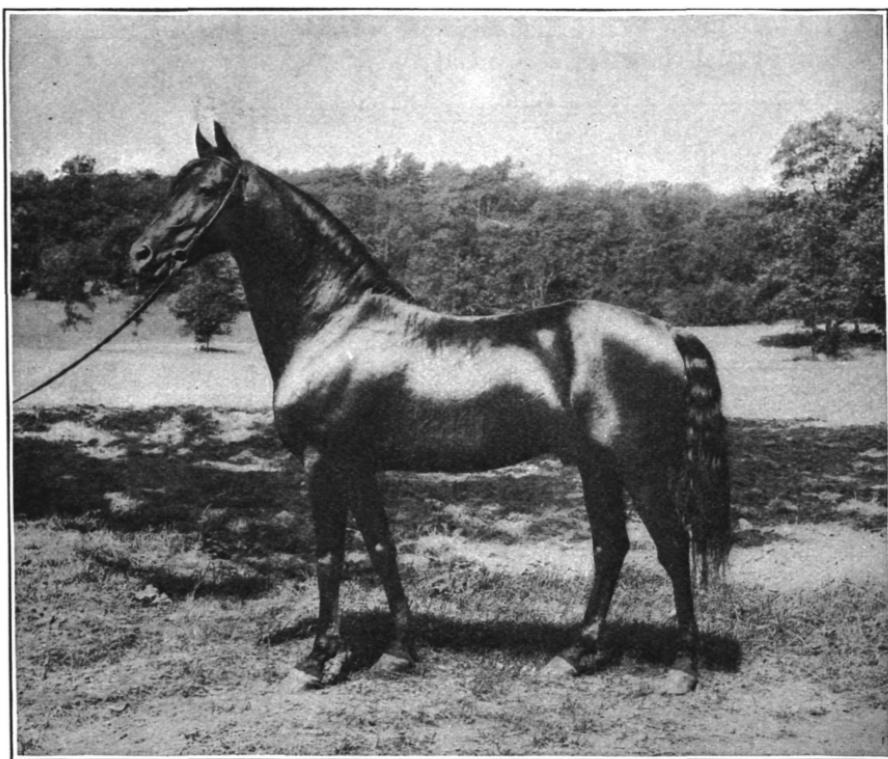


FIG. 14.—General Gates (666). At the head of the stud, U. S. Morgan Horse Farm, Middlebury, Vermont. A horse whose quality, good conformation, and prepotency make him a very valuable breeder.

and second, that the restoration of the Morgan can be greatly furthered by taking back to Vermont and other New England States some of the best of the descendants of the original New England stock and assisting in restoring the system of breeding to type which was abandoned with the development of the speed-at-any-cost idea. However, the Department is content to let the Kentucky purchase stand as an experiment, and will abide by the results.

The stallion General Gates and a filly out of one of the original

mares were purchased July 1, 1907. The filly is now 2 years old and is a very promising individual. General Gates was purchased after due consideration; the selection was made not only on his own individuality as a modern Morgan, but on his ability as a sire of the type desired. Few horses have greater prepotency than General Gates. Mated to mares of various types, he produces foals that are easily recognizable as being sired by him. He has stood in Addison County, Vt., for several years, and his get can be easily distinguished from those of other sires. His son Shakespeare was the champion Morgan stallion of all ages at the Louisiana Purchase Exposition, and his daughter Carrie Gates (now owned by the Department) was first at that show for 2-year-old mares.

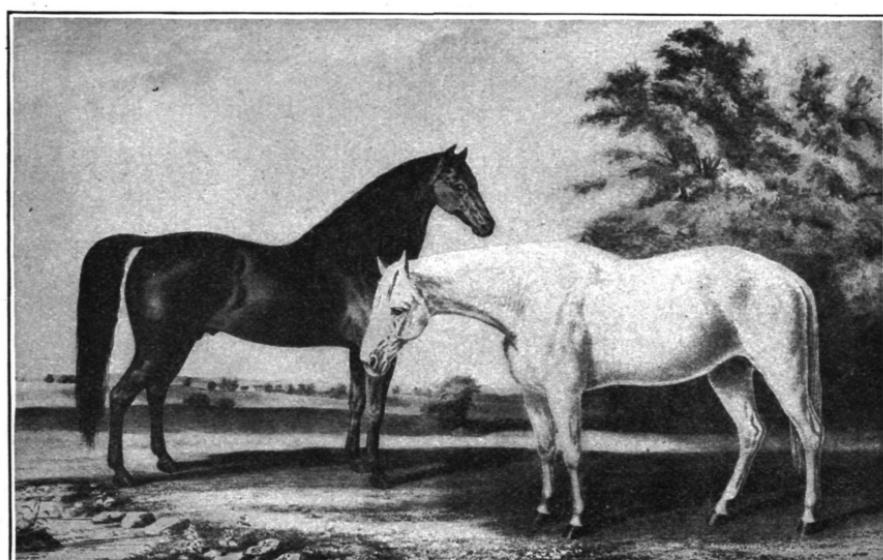


FIG. 15.—Vermont Black Hawk and Lady Suffolk. (The original of this illustration was a painting made in 1854, when both horses were at Bridport, Vermont. Black Hawk was 21 years old at the time. A comparison of the pictures of Black Hawk and General Gates will readily show the remarkable resemblance which the latter horse bears to his famous ancestor.)

General Gates is a black horse, bred by Joseph Battell, of Middlebury, Vt., and was foaled in 1894. He is 15 hands high and weighs 1,000 pounds in fair flesh. His sire was Denning Allen, he by Honest Allen, a son of Ethan Allen; General Gates's dam was Sallie Scott, by a Thoroughbred horse known as Revenue, jr., he by Revenue, he by imported Trustee, who is rated by Major Daingerfield, manager of the Castleton stud of James R. Keene, as one of the three greatest Thoroughbred horses imported during the nineteenth century.

Men who were well acquainted with Vermont Black Hawk declare that General Gates resembles him to a remarkable degree. In that

case the purchase of the horse for the Department's work was especially advantageous, for Black Hawk was one of the greatest Morgan horses of his time. He was not only a great individual, but was also a great sire, Ethan Allen, Stockbridge Chief (grandsire of Peavine), and Blood's Black Hawk (sire of Indian Chieftain and Gist's Black Hawk) ranking among his best sons.

The Thoroughbred cross in General Gates's pedigree needs little defense. According to the best information available, Justin Morgan himself had much more Thoroughbred blood than General Gates carries, and if we know anything at all about the breeding of the dam of Vermont Black Hawk it is that she was a "half-bred" mare. Gen-

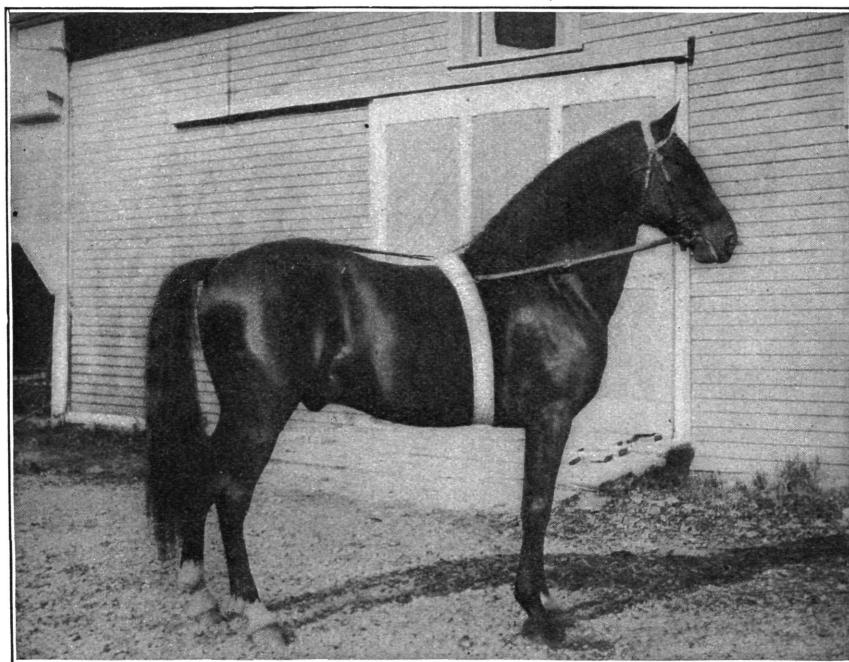


FIG. 16.—Kokane 40095 (5083). By Spokane; dam Revelyst by Revenue 1976. A Morgan sire of carriage type. (Photograph by courtesy of Gretna Farm.)

eral Gates is a Morgan in type without question; he reproduces his type in a uniform manner equaled by few stallions in the country, and much of the quality and finish in the horse and in his get are due to the Thoroughbred cross obtained through his dam. The value of the Thoroughbred in the development of the Saddle Horse in Kentucky is unquestioned, and even the strongest Kentucky partisans of the Saddle Horse admit the debt that the breed owes to the Morgan. The Morgans which were taken to Kentucky fifty years ago, such as Blood's Black Hawk and Butler's Eureka, proved of the greatest value when mated with the breddy mares of that State, and in Gen-

eral Gates, carrying about one-fourth Thoroughbred in his veins, we have a similar line of breeding when he is mated with the Morgan mares of Vermont, except that the Thoroughbred is on the male side.

The Thoroughbred cross, rationally and intelligently used, and selected strictly according to type, has always proved to be an advantage in the development of types of light horses. At least this has been true in England with the Hackneys, in France with the Demi-Sang, in Germany with the Trakhenen and similar breeds, and in Kentucky with the Saddle Horse. That it is also true in Vermont with the Morgan is shown, in the Department's judgment, by General Gates. Sole reliance, however, has not been placed on General Gates

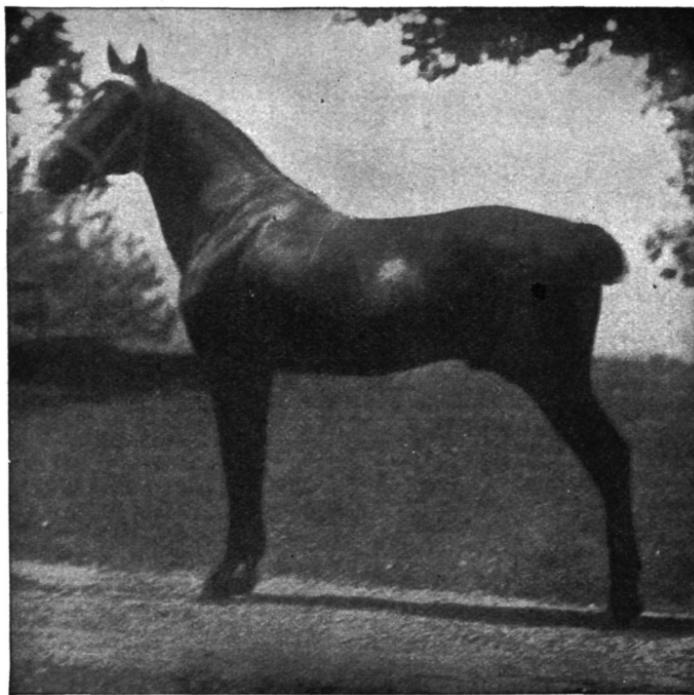


FIG. 17.—Rob Roy. By Ethan Allen 2d, a son of Peters' Morgan; dam by Starlight, a son of Flying Banner. A horse of excellent Morgan type.

as a sire. Of the original mares purchased, several were bred to other stallions, and in 1907 five mares were sent to other stallions. A few mares have also been bred outside this year.

The latest purchase for the Morgan work was that of two mares, Carrie Gates and Marion Gates, in October, 1907. These mares, as their names indicate, are both daughters of General Gates. Carrie Gates is a full sister to Shakespeare and Helen Gates, the latter one of the fillies in the Department stud.

The work in Vermont was given a great impetus early in 1907 by the presentation to the Department by Mr. Joseph Battell, of Middle-

bury, Vt., of a 400-acre farm, on which the work could be carried on to better advantage than on the farm of the Vermont Experiment Station at Burlington, where the soil is very sandy and not entirely suited to horse breeding. The farm is located about 2 miles from the village of Middlebury and lies along the west side of Otter Creek. It is underlaid with limestone, with occasional outcrops. It is also well timbered. The property is improved with two houses, two barns, and the usual outbuildings. Since the Department acquired the property considerable fencing has been done, paddocks have been

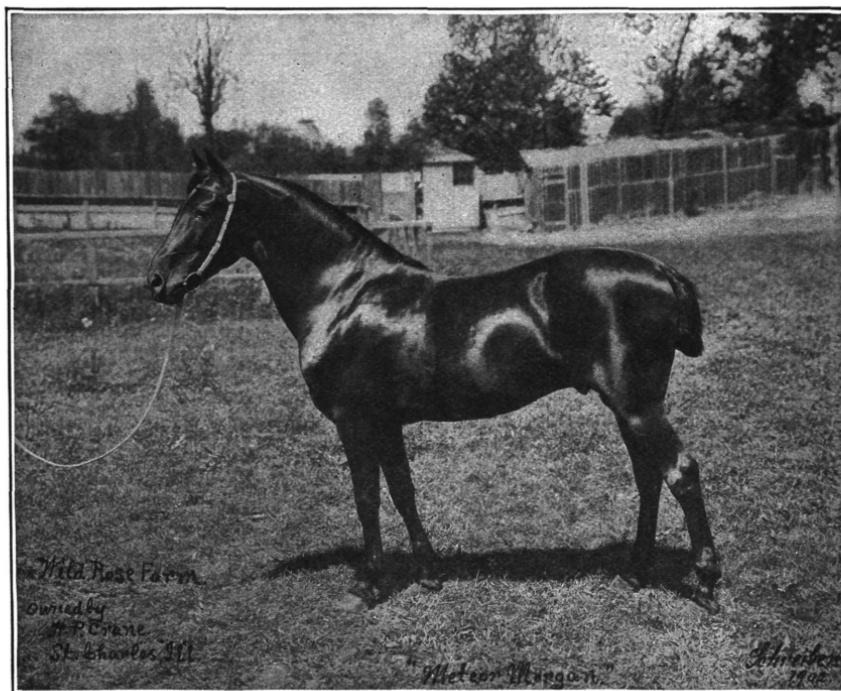


FIG. 18.—Meteo<sup>r</sup> Morgan. Registered as Meteo<sup>r</sup> 2d (4459). By Meteo<sup>r</sup>; dam by Winnebago Chief. A modernization of the strictly Morgan type. A horse of excellent style, quality, and conformation. (Photograph by courtesy of Wild Rose Farm.)

built, and the superintendent's house and main barn remodeled and repaired. All the horses are now located at this farm, the plant at the Vermont station being held in reserve as a possible substation in future.

The stud being located on the Department's property, the arrangement for the cooperation in the Vermont case is somewhat different from that in Colorado. It is cooperative, however. The station shares in the annual maintenance expense, in return for which it is given title to five foals annually. A station officer (Mr. Cassius Peck) assists in the management of the farm. The same restrictions

upon the station in the Colorado work regarding progeny held in the agreement with the Vermont station. The stallion may be used on outside mares approved by the superintendent of the farm, Mr. W. F. Hammond.

STUD RECORDS IN VERMONT.

Only two crops of foals have been obtained in the Morgan work, and only in the latest (1908) were all the foals dropped at the Morgan Horse Farm. The breeding season of 1907 was unfortunate, in that four of the five mares which were sent away to be bred failed to be in foal. As the Department has owned General Gates only

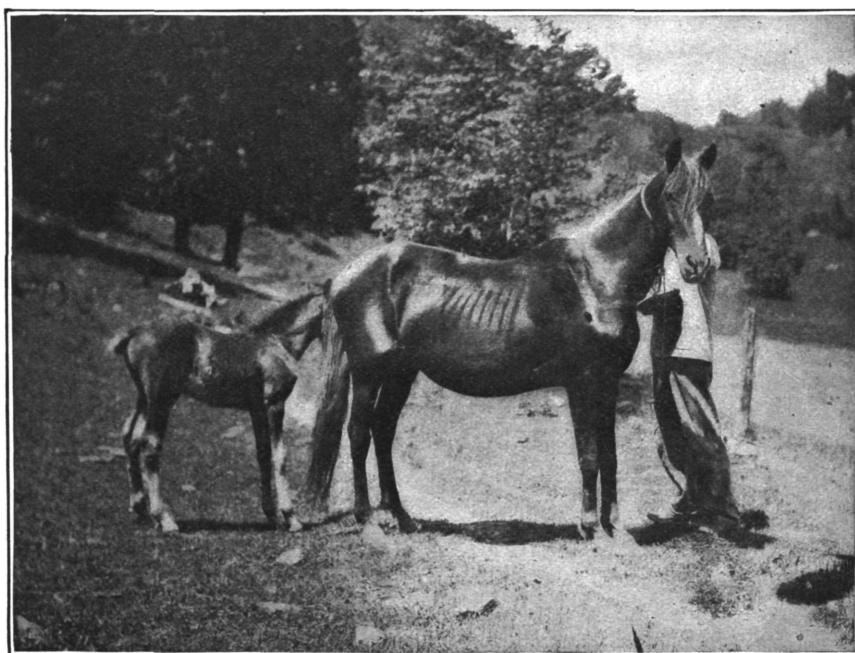


FIG. 19.—An aged Morgan matron. A daughter of Daniel Lambert over 20 years old at time photograph was taken in 1906. The mare is still producing. Note the quality shown by both mare and foal.

since July 1, 1907, we have not a complete stud record for him. The produce records of the mares are given below:

BABE, ch. m., Vol. III, A. M. R.

Bred by Sim Dunn, Burke, Vt.; foaled, July 22, 1899; height 15.2 hands; sire Bob Morgan (4549). Purchased June, 1906.

1907, br. c. by Frank Allen (4694). Castrated, 1908.

1908, missed.

ELLEN, ch. m., Vol. III, A. M. R.

Bred by E. J. Goodyear, Hancock, Vt.; foaled June 28, 1895; height 15.2 hands; sire Rocky Mountain (3914). Purchased June, 1906.

1908, April 20, ch. f. by General Gates (666).

## HARRISON BELLE, ch. m. 3712 (S.).

Bred by J. W. Cromwell, Cynthiana, Ky.; foaled 1895; height 15.0½ hands; sire Harrison Chief 1606 (S.); dam by Coleman's Eureka (451). Purchased June, 1906.

1908, March 15, bl. f., Isabel Gates, by General Gates (666).

## IANTHE HINDS, b. m., Vol. III, A. M. R.; Vol. XIV, A. T. R.

Bred by E. D. Hinds, Pittsford, Vt.; foaled June, 1894; height 15 hands; sire Young Ethan Allen 2384 (3658); dam Twilight by Daniel Lambert 102 (62). Purchased June 12, 1906.

1908, June 5, ch. f. by Battle Ax (5221), 2435 (S.).

## KIT BEATTY, br. m.

Bred by P. S. Eminis, West Berkshire, Vt.; foaled June 18, 1893; height 15 hands; sire Harry Clay by Cassius M. Clay, jr., 20; dam Dolly by Young Pine. Purchased June, 1906.

1907, April —, stillbirth.

1908, April 11, b. c., Benjamin Gates, by General Gates (666).

## LADY ALLEN, Vol. III, A. M. R.

Bred by E. C. Ryder, Vergennes, Vt.; foaled 1897; sire Denning Alien (74); dam Roxy by Daniel Lambert (62) 102. Purchased June, 1906. Destroyed April 2, 1908; unsound.

1908, missed.

## MAGGIE, ch. m.

Foaled about 1892; height 15 hands. Purchased June, 1906.

1907, June 2, b. f., Madge, by Rex.

1908, missed.

## MRS. CULVERS, b. m., 3711 (S.).

Bred by Charles McElwain, Bowling Green, Ky.; foaled 1895; height 15.1 hands; sire Harrison Chief 1606 (S.); dam Belle by Cabell's Lexington (1223). Purchased June, 1906.

1908, April 3, b. c., Harrison Gates, by General Gates (666).

## POLLY B., b. m.

Bred by D. F. McCauley, Shoreham, Vt.; foaled June 19, 1900; height 15.2 hands; sire Gillig 14258 (3869). Purchased June, 1906.

1907, June 9, bl. f., Polly's Baby, by General Gates (666). (Twins, colt and filly; colt dead at birth.)

Carrie Gates and Marion Gates were bred in the spring of 1908 to Lambert B., a son of Daniel Lambert.

A full sister to Helen—Lilian Gates—was purchased at the same time, but died suddenly two or three months thereafter. A filly out

of Kit Beatty (purchased with dam) died in December, 1907, of tetanus. A filly out of Lady Allen, purchased in utero, was destroyed on account of unsoundness.

The aim of the stud at Middlebury is to preserve the Morgan type at its best, keeping the splendid conformation, spirit, and endurance for which these horses are famous, and eliminating the tendency to coarseness, heavy withers, and low backs. A careful effort will also be made to improve the action by getting away from the choppiness and irregularity in gait, and particularly by eliminating the tendency to pace and mix gaits. Size will be increased carefully by selection, but it is not our purpose to make the Morgan a big horse. A size ranging from 15.1 to 15.3 hands is sufficient, with about 15.2 as the ideal. However, this will not by any means disqualify a 15-hand horse or one even somewhat smaller, provided he has desirable characteristics of conformation, quality, and action. It should be clearly understood that the work with the Morgans is not to be merged into that with the American carriage horse. Although the Morgan always has been and probably always will be a prime factor in the production of carriage horses, the type should be kept distinct.

#### CLASSIFICATION FOR AMERICAN CARRIAGE HORSES.

As a coordinate line of work with the carriage-horse breeding work, the Department, in cooperation with the American Association of Trotting Horse Breeders, has formulated a classification for American carriage horses, the adoption of which has been presented to State fair authorities with gratifying success.

The adoption of such classifications by the fairs was obviously a matter to follow soon after the inauguration of the work in Colorado, and in 1907 the Iowa State Fair, through the influence of the superintendent of the horse department, Professor Curtiss, provided such a classification. Soon after the action taken by the Iowa board the Blue Grass Fair in Kentucky adopted a similar classification. The Kentucky State Fair also offered prizes for one class at the 1907 fair. All had the same object in view, but they differed in quite important details. Recognizing the importance of a uniform and general classification, Mr. A. T. Cole, of Wheaton, Ill., who for several years has been studying the carriage possibilities of the American horse, and who has been breeding along definite lines to this end, interested the American Association of Trotting Horse Breeders in the matter, and in May, 1907, called at the Department on behalf of the association to request the cooperation of the Department with the association in providing a classification for general use.

The suggestion was favorably received, and, although the work was started late in the year, two fairs adopted the classification in complete form—the Kansas State Fair, held at Hutchinson, and the Interstate Fair and Exposition, held at Kansas City, Mo.

The classification at the Blue Grass Fair was worded "for horses fitted to produce American carriage horses," and comprised three classes—for stallions 3 years old and over; for mares 4 years old and over which have produced a live foal, and for mares 4 years old and under which have not produced a live foal. Two premiums were offered in each class. The exhibits were quite creditable, especially in the mare classes.

At the other fairs the quality of the animals, although not all that could be desired in all cases, was as good as could be expected, and there is every reason to be gratified at the showing made. In an educational movement like this we may expect improvement from year to year.

The efforts of the Department to bring about a general adoption of the classification for the 1908 fairs surpassed expectations. Eleven State fairs have adopted it in whole or in part: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio, Tennessee, Washington, and Wisconsin. It was also adopted by the management of the Tri-State Fair, to be held at Memphis, Tenn. Others are considering its adoption and the matter is exciting considerable interest among county and district fairs. The Blue Grass Fair has retained the same classification and specifications as for 1907 on account of the special system of showing in vogue.

The cooperative arrangement between the Department and the American Association of Trotting Horse Breeders is made effective by the organization of a committee on heavy harness horses in the association to represent the Department, the Morgan breeders, the saddle-horse breeders, and the trotting-horse breeders. The committee is composed of the Animal Husbandman of the Bureau of Animal Industry, chairman; Mr. Maxwell Evarts, New York, N. Y., a member of the American Morgan Register Association, and president of the Vermont State Fair; Gen. John B. Castleman, Louisville, Ky., president of the American Saddle Horse Breeders' Association; Mr. A. T. Cole, Wheaton, Ill.; Prof. Charles F. Curtiss, director of the Iowa Agricultural Experiment Station, Ames, Iowa, and a member of the horse-purchasing board of this Department, and Mr. H. K. Devereux, Cleveland, Ohio, a well-known trotting-horse man and secretary of the American Association of Trotting Horse Breeders.

The widespread adoption of the classification is of the greatest importance to the carriage-horse movement at this time and to

farmers and breeders who own horses suitable to get American carriage horses, for the reason that the fairs are in very close touch with farmers, also that the farmers are the breeders of most of the carriage horses sold on the American market, and that by means of exhibits at the fairs farmers can be rapidly educated to appreciate the value of the American horse for carriage purposes. With the powerful influence of the fairs and stock shows thrown into the solution of the carriage-horse problem, the farmer will not only learn to appreciate the intrinsic value of the native light horse as a carriage horse, but will recognize the worth, as a sire of such horses, of a stallion that has good conformation and quality, but only moderate speed. The problem of fixing the type will then be one of early solution.

The classification is as follows:

#### TYPE.

The type desired for the American carriage horse is as follows: Not under 15 hands for mature horses; smooth, compact, and symmetrical conformation; neck of good length, inclined naturally to arch; sloping shoulders; well-set legs of medium length; sloping pasterns and good feet; short, strong back; well-sprung ribs well ribbed up to coupling; smooth loins; full flanks; straight croup, with well-set tail; full, round quarters.

#### CONDITIONS GOVERNING ENTRIES.

Classes open only to horses of American blood.

Stallions in classes 1 to 5, inclusive, must be registered either in the American Trotting Register as standard, in the American Morgan Register, or in the American Saddle Horse Register, and certificate of such registry must be shown in the ring if required.

Entries in all classes for mares must be registered either in the American Trotting Register as standard or nonstandard, in the American Morgan Register, or in the American Saddle Horse Register, and certificate of such registry must be shown in the ring if required.

Entries as get of sire in class 5 and produce of mare in class 10, and entries in class 11 must be sired by a stallion registered as above, out of mares registered as above.

No mare having any draft cross will be eligible.

Any exhibitor falsifying the breeding of entries will be barred.

Entries in all classes must be practically sound.

#### JUDGING.

Entries in all classes to be judged on conformation, style, action, and manners as a suitable type of carriage horse. Special attention will be given to trueness of action. Good knee and hock action are essential. Entries in all classes should trot and walk straight and true, and judges will especially avoid horses showing any tendency to pace, mix gaits, paddle in front, or sprawl behind.

The following percentages will govern judges in classes 1, 2, 3, 4, 6, 7, 8, 9: General conformation and all-round suitability as a carriage type, 60 per cent; style, action, and manners, 40 per cent.

The following percentages will govern in class 5: General conformation and all-round suitability of sire as a carriage type, 30 per cent; style, action, and manners of sire, 20 per cent; general conformation and all-round suitability of get as a carriage type, taken as a whole, 30 per cent; style, action, manners, and uniformity of type in get, 20 per cent.

The following percentages will govern in class 10: General conformation of dam as a brood mare of the carriage type, 50 per cent; general conformation, style, action, and manners of the foal, 50 per cent.

The following percentages will govern in class 11: General conformation of entry as a carriage type, 70 per cent; style, action, and manners, 30 per cent.

#### MANNER OF SHOWING.

Entries in classes 1, 2, 6, and 7 to be shown in harness, hitched to any suitable vehicle. Entries in all other classes to be shown in hand to bridle or halter. Excessive weight in shoeing in any class is forbidden.

#### CLASSES.

Class 1. Stallion 4 years old or over.

Class 2. Stallion 3 years old and under 4.

Class 3. Stallion 2 years old and under 3.

Class 4. Stallion 1 year old and under 2.

Class 5. Stallion with three of his get of either sex; get need not be owned by exhibitor.

Class 6. Mare 4 years old or over.

Class 7. Mare 3 years old and under 4.

Class 8. Mare 2 years old and under 3.

Class 9. Mare 1 year old and under 2.

Class 10. Mare and foal of either sex.

Class 11. Foal under 1 year old, either sex.

The blood lines specified for these classes have caused some comment. They were chosen in view of the facts already set forth in this article, that nearly all our good American carriage horses are bred in certain lines found either in the American Trotting Register, the American Morgan Register, or the American Saddle Horse Register, or in two or all of these registers. The development of the American carriage horse is first of all a matter of wise selection of type; selection of pedigrees can only come when it is definitely established what blood lines produce the type desired. Within certain limits we know this already, but we do not know all the carriage-producing lines of the American horse, and the acquirement of this knowledge as soon as possible is desirable. By the exhibitions at the fairs breeders can soon be shown what is the desired type, and by studying the pedigrees of the horses winning in the American carriage-horse classes the definitely producing blood lines will soon become known.

The responsibility of judges acting under these specifications is apparent. Not all horses registered as prescribed will be desirable individuals to which to give a premium. In each one of the registers

named there can be found many good producing lines and many suitable individuals, but there are more which are not such. With wise judging there need be no more danger of a strictly saddle type winning than of a strictly racing type.

#### EXTENSION OF THE WORK DESIRABLE.

The development of the work of improving and fixing our native types of horses should not be allowed to stop after the auspicious start which has been made. Although the Department believes that very rapid development would be highly undesirable, a gradual growth and extension is needed. Extensions of the work should be made into other States, the one most important and desirable at this time being the establishment of a breeding station in Kentucky, located in the blue-grass region, whence come so many fine carriage horses. This should be sufficiently extensive to enable representatives of the best Kentucky blood lines to be reared on their native soil.

#### CONCLUSION.

In the Department's work the individuality of a horse is the point given greatest weight in his selection, and strict selection to type is the policy in view. Wherever possible (as in the last Kentucky purchase), the inheritance of type has been combined with the selection of type in the individual, and naturally an animal that inherits good individuality from his ancestors and is himself a good individual is much more valuable for the Department breeding establishments than one without such an inheritance.

The close relationship of our native horse stock can be made to yield wonderful results if properly used. We have been prodigal with the blood of our fine horses, just as we have been prodigal with our forests; but it is not yet too late.

The Department does not seek to antagonize those men who are expending large sums of money annually in the breeding of horses for the race track. It believes that breeding for speed produces in the long run a horse which is of great value in the improvement of the average run of light horses, but the breeding of horses for the sole and specific purpose of speed production can not as a rule be followed by the average farmer with profit.

Neither does the Department wish to antagonize the breeders of "coach" horses whose origin is in other countries. Such horses have their place. What the Department does desire is to see the American horse given a fair chance not only in our markets but in our show rings and on our breeding farms. No one should deny him that; neither should one condone the policy of ruthless destruction which has been going on in the past and which has threatened the total extinction of native types.

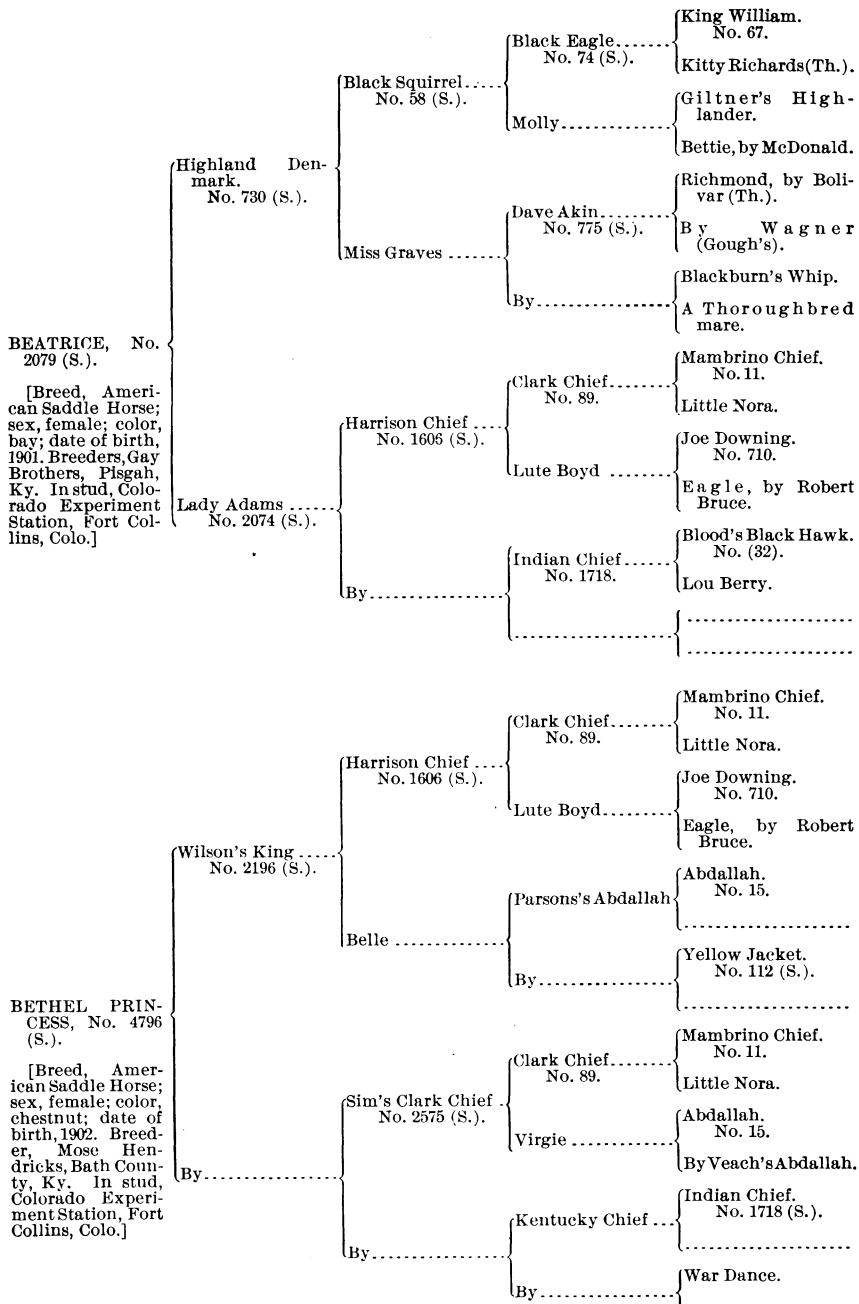
It is no patriotic fancy to urge that our native types of light horses should be preserved. It is not a fallacy to argue that out of these types can be evolved the horse par excellence for farmers and horsemen who prefer the light type. Neither is it paternalistic nor socialistic for the Federal Government to take a hand in this work. It is a national movement, requiring a national policy to insure uniformity, concentration of effort, and continuity of purpose.

#### LIST OF PEDIGREES.

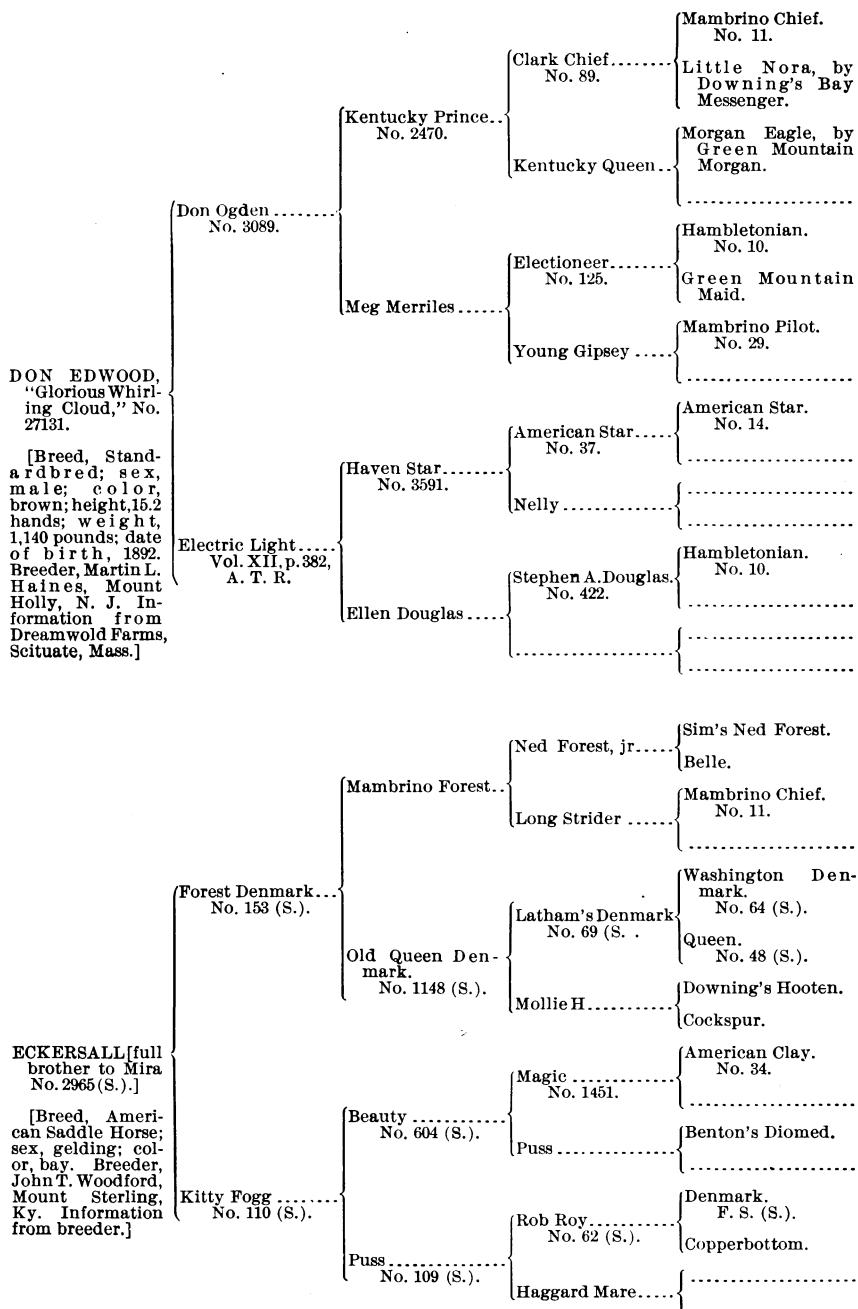
In the following pages are a number of tabulated pedigrees (in alphabetical order) of horses in the Department's studs, as well as of a number of show horses and of others referred to in the foregoing pages as important sires. In every case where a horse is not registered, or where it has been shown under a different name from that under which it was registered, a notation is made showing the authority for the pedigree as published. The plan of indicating the registry numbers is explained on page 107 (footnote).

AHNA, No. 3301 (S.)	[Breed, American Saddle Horse; sex, female; color, bay; height, 15.2½ hands; date of birth, 1896. Breeder, C. H. Vorhis, Nelson County, Ky.]	Chester Lad No. 295 (S.).	Chester Dare No. 10 (S.).	By.....	Black Squirrel.....	Black Eagle. No. 74 (S.).
					By.....	Dave Akin. Old Van.
Lady Harrison.....	Harrison Chief No. 1606 (S.).	Keene George .....	Star Denmark. No. 71 (S.).	By.....	.....	.....
					.....	.....
Clouette.....	Peavine No. 85 (S.).	Clark Chief.....	Mambrino Chief. No. 11.	By.....	Clark Chief.....	Little Nora.
					Lute Boyd.....	Joe Downing. No. 710.
Clouette.....	Rattler. No. 501.	Eagle, by Robert Bruce (Th.).	(Cabell's Lexington.	By.....	Peavine.....	.....
					.....	.....

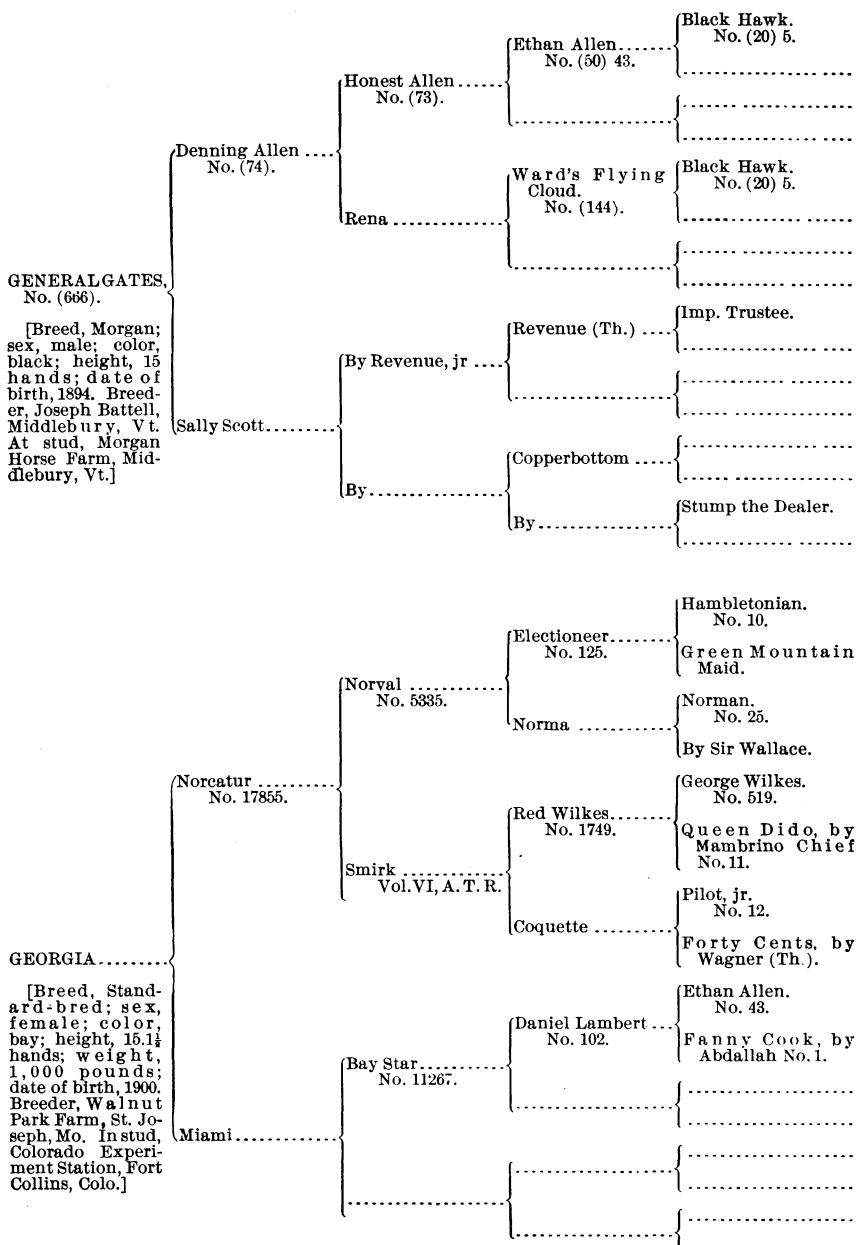
			Hambletonian. No. 10.
		George Peabody . . .	By Imp. Bellfounder.
		By . . . . .	Imp. Bellfounder.
			.....
	Emigrant . . . .	Lord Winbeam . . .	Ethan Allen. No. 43.
ARIZONA . . . .		Lady Spartan . . . .	Nelson.
		Spartan . . . . .	Lady Fiddler.
		Lady Hattie . . . .	
			Lexington.
		Tom Bowling . . . .	Lucy Fowler, by Al- bion.
		Oleander (Mary Hennessy). . . .	Tipperary.
			Olio, by Oliver.
		Red Bud (Th.) . . .	
		Cora . . . . .	Spartan.
		Spartan, jr . . . .	Lady Hattie.
		Lady Fauna . . . .	
		(An imported Yorkshire coach mare.) . . .	
		Black Squirrel . . . .	King William. No. 67 (S.).
		No. 58 (S.). . . .	Kitty Richards (Th.).
			Giltner's Highlander
		Mollie . . . . .	Bettie, by McDonald.
		By . . . . .	Richmond (Th.).
		Dave Akin . . . .	(By Wagner (Gough's)
		Old Van . . . . .	Major Breckenridge.
BARTHENIA MC- CORD, No. 3223 (S.). . . .		Rattler . . . . .	Stockbridge Chief. No. (102).
		No. 501. . . . .	
		Peavine . . . . .	
		No. 85 (S.). . . .	
		Trojan . . . . .	
		By . . . . .	Brinker's Drennon. No. 1600 (S.).
		By . . . . .	By Kavanaugh's Gray Eagle 87 (S.).

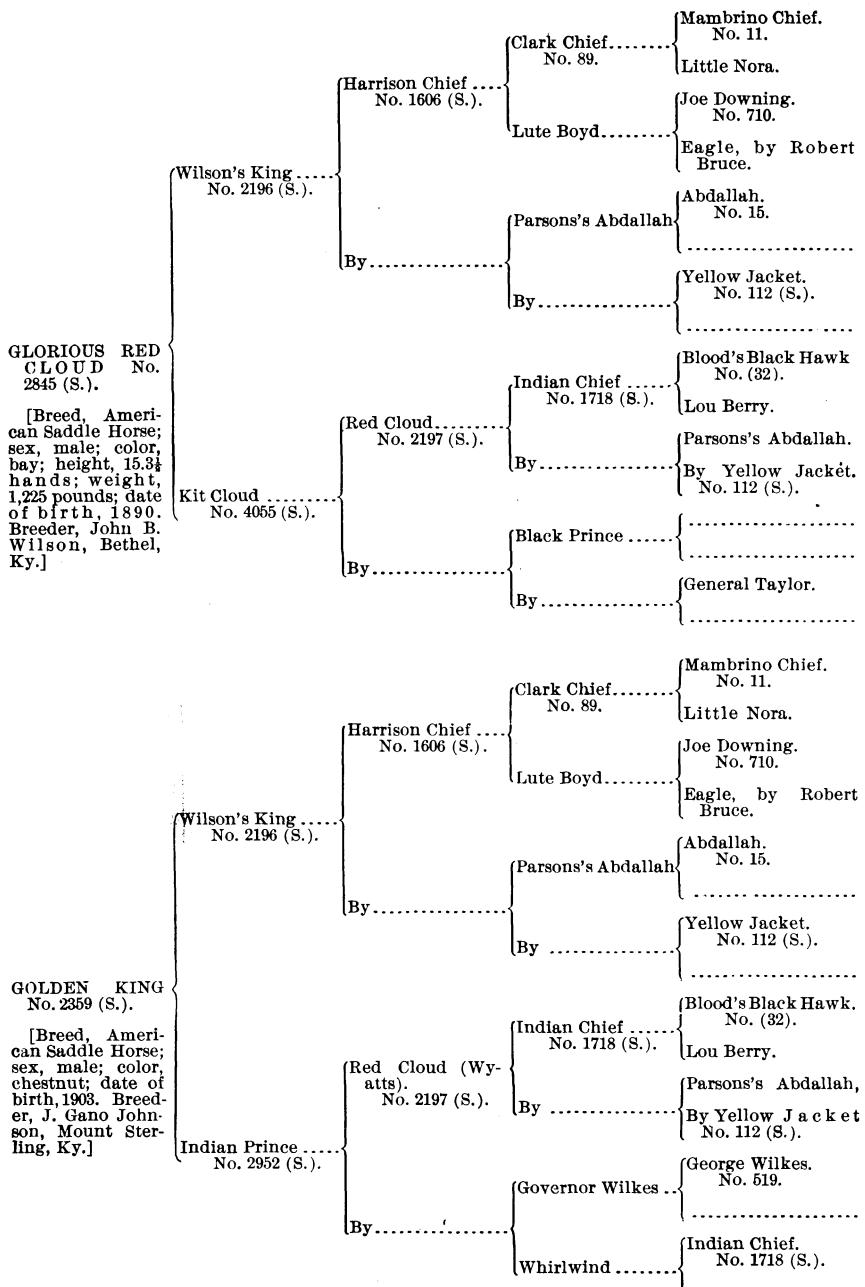


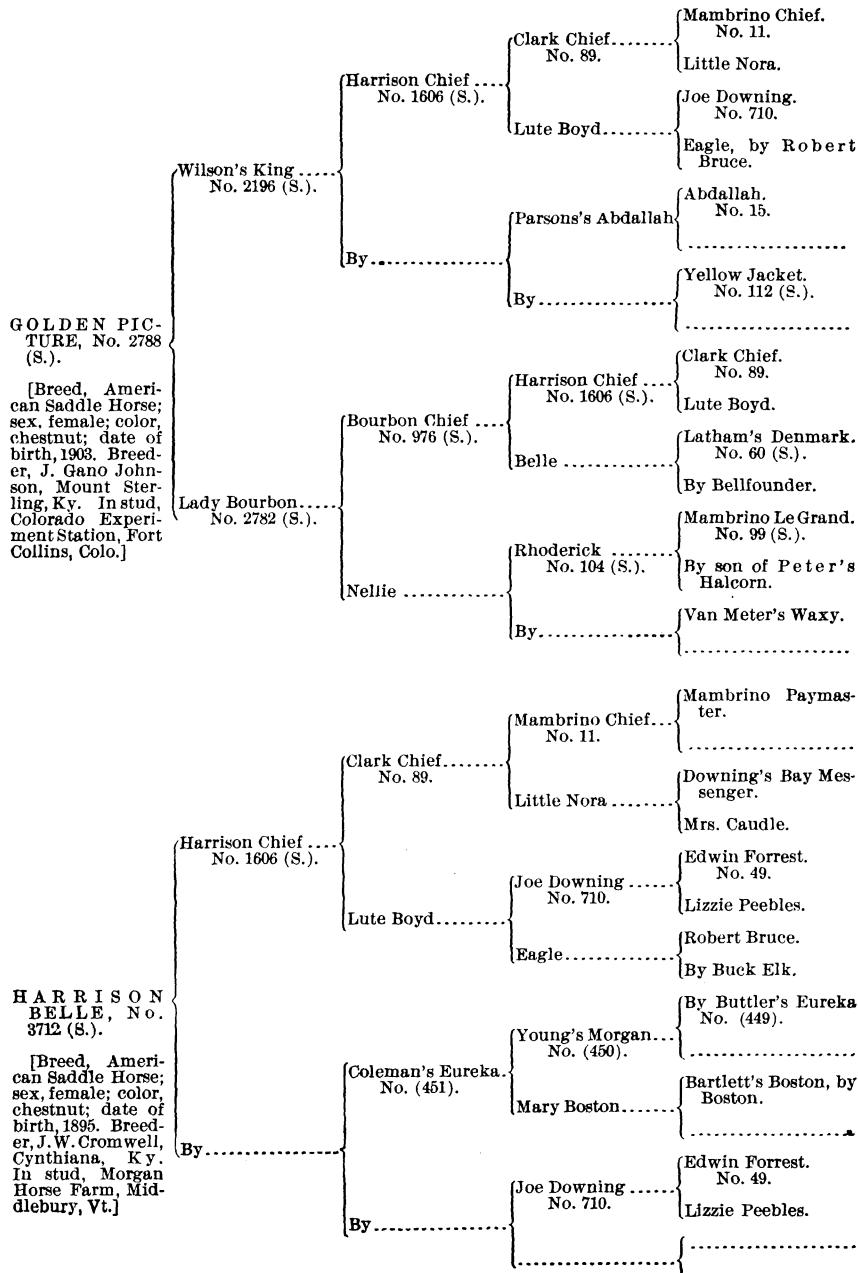
			Mambrino Chief. No. 11.
			Little Nora.
		Clark Chief..... No. 89.	
	Harrison Chief No. 1606 (S.).	Lute Boyd.....	Joe Downing. No. 710.
	Bourbon Chief No. 976 (S.).	Eagle, by Robert Bruce.	
	Belle .....	Washington Den- mark. No. 64 (S.).	
		Queen. No. 48 (S.).	
		By.....	Bellfounder.
BOURBON KING, No. 1788 (S.).			
[Breed, Ameri- can Saddle Horse; sex, male; color, chestnut; date of birth, 1900. Breeder, R. B. Young, Mount Sterling, Ky.]			
		Clark Chief. No. 89.	
		Lute Boyd.	
		Parsons's Abdallah.	
	Wilson's King No. 2196 (S.).	By.....	By Yellow Jacket. No. 112 (S.).
	Annie C.....	Richlieu.....	Indian Chief. No. 1718 (S.).
		By.....	
		By.....	Kentucky Chief, by Indian Chief No. 1718 (S.).
			By Salmon's Glen- coe (Th.).
		Major Edsall..... No. 211.	Abdallah. No. 15.
	Robert McGregor No. 647.	Nancy Whitman .....	By Harris's Hamble- tonian No. 2.
	Carnegie..... No. 8405.		American Star. No. 14.
			Nance, by Young Messenger Duroc.
		Nutwood..... No. 600.	Belmont. No. 64.
	Annie Nutwood (non-standard). Vol. VI, p. 376, A. T. R.		Miss Russell, by Pi- lot, jr., No. 12.
		Annie Watson.....	Vermont Boy.
CARMON, No. 32917.			
[Breed, Stand- ardbred; sex, male; color, bay; height, 16 hands; weight, 1,250 pounds; date of birth, 1895. Breeder, Norman J. Col- man, St. Louis, Mo. At stud, Col- orado Experiment Station, Fort Col- lins, Colo.]		Merchant..... No. 599.	Belmont. No. 64.
		Trojana .....	Lady Mambrino, by Mambrino Chief No. 11.
	Monitor..... No. 1327.		Trojan. No. 312.
	Monitor Maid..... Vol. XI, p. 646, A. T. R.		By Hercules.
		Seth Warner..... No. 281.	Ethan Allen. No. 43.
			Sontag, by Harris's Hambletonian, No. 2.
	Clara C..... Vol. XI, p. 389, A. T. R.	Grace.....	Abdallah, jr. No. 5720.
			Glencoe Bell, by Old Bull.



ELVIRA LIND- SEY No. 3033 (S.).	Wilson's King No. 2196 (S.).	Harrison Chief No. 1606 (S.).	Clark Chief.....	Mambrino Chief. No. 11.
	By.....	Lute Boyd.....	Little Nora.	
[Breed, Ameri- can Saddle Horse; sex, female; color, bay; date of birth, 1900. Breeder, J. H. Gillespie, Stoops, Ky.]	Red Cloud (Wy- att's). No. 2197 (S.).	Parsons's Abdallah	Joe Downing. No. 710.	Eagle, by Robert Bruce.
	By.....	By.....	Abdallah. No. 15.	
CHESTER DARE No. 10 (S.).	Hamlette, jr.....	Indian Chief No. 1718 (S.).	Yellow Jacket. No. 112 (S.).	Blood's Black Hawk. No. (32.)
	Hamlette.....	By.....	Lou Berry.	Parsons's Abdallah.
EMMA BRIGGS No. 2895 (S.).	Black Squirrel. No. 58 (S.).	Black Eagle No. 74 (S.).	By Yellow Jacket No. 112 (S.).	By Yellow Jacket
	By.....	Mollie.....	.....	.....
[Breed, Ameri- can Saddle Horse; sex, female; color, bay; height, 15.2 hands; date of birth, 1899. Breed- er, Chas. McCormick, Waddy, Ky.]	Chester Dare No. 10 (S.).	Dave Akin.....	King William. No. 67 (S.).	Kitty Richards (Th.).
	By.....	Old Van.....	Giltner's Highlander.	Bettie, by McDonald.
By.....	Highlander No. 7106.	Joe Young No. 2530.	Richmond (Th.).	By Wagner (Gough's)
	By.....	Lucy.....	Major Breckenridge.	By McDonald.
By.....	Boyd Winchester..	Star of the West. No. 666.	Antar. No. 4950.	
	By.....	Lucy.....	Cora, by Ned Forrest (Sweeting's).	Sam Booker. No. 1603.
By.....	By.....	Gray Eagle.	.....	.....







<b>H A R R I S O N</b> <b>CHIEF</b> , No. 1606 (S.) 3841.  [ <i>Breed, American Saddle Horse and Standardbred; sex, male; color, bay, with black points; height, 16 hands; date of birth, 1872. Breeder, J. W. Cromwell, Cynthiana, Ky.]</i>	<b>Clark Chief</b> No. 89.	<b>Mambrino Chief</b> No. 11.	<b>Mambrino Pay master.</b> <b>Eldridge mare</b> ....	<b>Mambrino, by Imp. Messenger.</b> <b>.....</b>
	<b>Little Nora</b> ....	<b>Dowling's Bay Messenger.</b> <b>.....</b>	<b>Harpinus.</b> <b>By a Thoroughbred horse.</b>	<b>.....</b>
			<b>Mrs. Caudle</b> ....	<b>.....</b>
			<b>Edwin Forrest</b> No. 49.	<b>Bay Kentucky Hunter.</b> <b>By Watkins's Young Highlander.</b>
		<b>Joe Downing</b> No. 710.	<b>Lizzie Peebles</b> ....	<b>.....</b>
		<b>Lute Boyd</b> ....	<b>Robert Bruce</b> ....	<b>Clinton (Th.).</b> <b>.....</b>
		<b>Eagle</b> ....	<b>By</b> ....	<b>Buck Elk, son of Doublehead (Th.).</b> <b>.....</b>
			<b>Spartan</b> ....	<b>Ethan Allen.</b> No. 43.
			<b>Lady Hattie</b> ....	<b>Nelson.</b> <b>Lady Fiddler.</b>
		<b>Chugladdie</b> ....	<b>Scottie</b> .... <i>(An imported Yorkshire coach mare.)</i>	<b>.....</b>
			<b>Tom Bowling</b> ....	<b>Lexington.</b> <b>Lucy Fowler, by Albion.</b>
			<b>Red Bud (Th.)</b> ....	<b>Tipperary.</b> <b>Oleander (Mary Hennessy).</b>
			<b>Hill Bud</b> ....	<b>Olio, by Oliver.</b>
			<b>Hill Beam</b> ....	<b>Lord Winbeam.</b> <b>Lady Spartan, by Spartan.</b>
			<b>Emigrant</b> ....	<b>St. Mongo.</b> <b>Lady Spartan, by Spartan.</b>
			<b>Lady St. Mongo</b> ...	<b>.....</b>



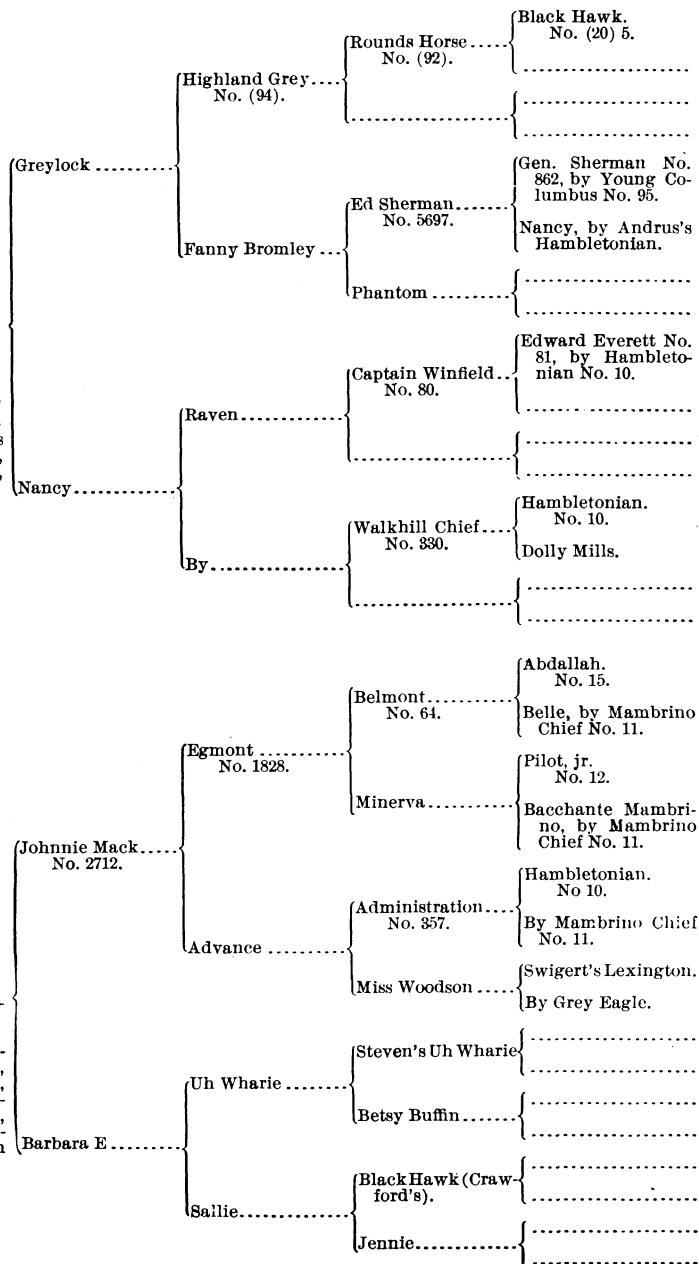
LORD BALTIMORE (Shark).

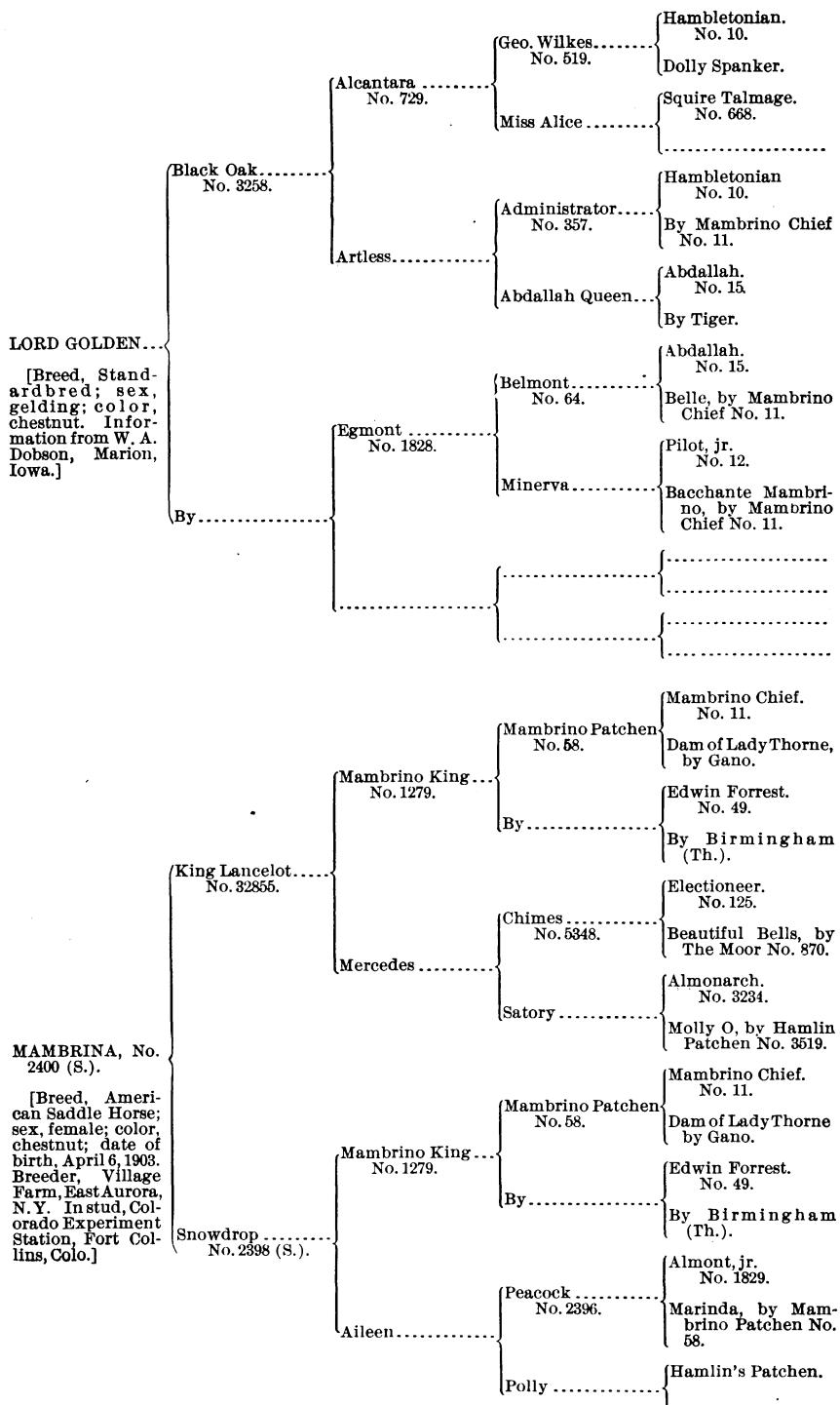
[Sex, gelding; color, bay; height, 15.2 hands; date of birth, 1899. Information from Sports of the Times, March 16, 1907, page 348.]

March 16, 1907, Nancy  
page 348.]

[Breed, Stand ard bred; sex, gelding or col-

[Breed, Standardbred; sex, gelding; color, chestnut. Breeder, I. N. Suter, Golden, Ill. Information from breeder.]





M A M B R I N O  
KING, No. 1279.

[Breed, Standard-bred; sex, male; color, chestnut; date of birth, 1872. Breeder, Dr. L. Herr, Lexington, Ky.]

By

(Prince L....

MICHIGAN

[Breed, Standardbred; sex, female; color, bay; height, 16 hands; weight, 1,105 pounds. Breeder, C. J. Monroe, Bangor, Mich. In stud, Colorado Experiment Station, Fort Collins, Colo.]

By

- 3

Mambrino Chief No. 11.	Mambrino Paymaster.	Mambrino by Imp. Messenger.
Dam of Lady Thorn	Gano	
Edwin Forrest No. 49.	Kentucky Bay Hunter.	
By	Birmingham(Th.).	
By	Bertrand (Th.).	
		By Sumter (Th.).

Bourbon Wilkes No. 2345.	George Wilkes..... No. 519.	Hambletonian. No. 10.
	Favorite.....	Dolly Spanker, by Henry Clay No. 8.
Daisy Monroe .....	Monroe Chief..... No. 875.	Abdallah. No. 15.
	Sue F.....	Lizzie Peebles, dam of Joe Downing No. 710.
	Young Wilkes..... No. 951.	Jim Monroe. No. 835.
Temperance..... No. 6819.	Nelly.....	By Bay Chief, son of Mambrino Chie f No. 11.
By.....	Ashland Prince ... No. 5305.	Mambrino ( Mon- tague's), by Mam- brino Chief 11.  By Commodore (Hunt's).
		George Wilkes. No. 519.  By Prince of Wales.
		Robert Whaley. No. 2214.  Kitty, by Sorrel Tom.
		Happy Medium. No. 400.
		Josie Ken n y , b y Standard Bearer No. 5300.

